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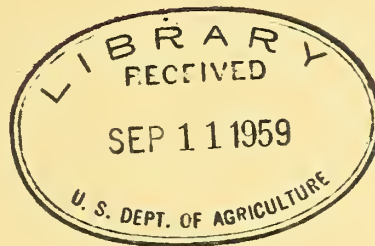
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MOVEMENTS, FREIGHT RATES, *and* PRICES OF

POTATOES

3a
RECENT TRENDS FOR
NINE MAJOR MARKETS

by *Springer*



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MOVEMENTS, FREIGHT RATES, AND PRICES OF POTATOES

Recent Trends for Nine Major Markets

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Since the end of World War II, marketing charges on farm products have risen steadily. In contrast, prices received by farmers for their products have fluctuated, with periods of declines in price exceeding those of increases in price. Increases in price occurred in 3 years, January 1946 - January 1948, and (after the start of the War in Korea) February 1950 to February 1951. On the other hand, declines in price occurred in the remaining 4½ years -- January 1948 to February 1950, and February 1951 through the first 6 months of 1953.

1/ This study was made under authority of the Agricultural Marketing Act of 1946 (RMA, Title II). Mildred DeWolfe and others assisted in the statistical analysis.

Although freight rates are only a part of the total marketing charges (approximately 12 percent for foods in the market basket in 1950 and 1951), they are much more important for a relatively low-valued commodity, such as potatoes, than for most other fruits and vegetables.

Because of the rigidity in railroad freight rates relative to agricultural prices, the transportation problems of the farmer are greater during periods of depressed agricultural prices.

With the postwar price behavior of potatoes generally approximating that of all agricultural products, a study of the trends in freight rates and prices of potatoes during this period of fluctuating prices provides a useful analysis not only for the potato industry but also for agriculture in general.

SUMMARY

Although the specialized producing areas tend to dominate the nine large markets included in the study upon which this report is based, substantial shifting has occurred among these areas in the postwar period. Since 1946, Maine has lost ground in the Atlanta market, but has gained in New York City and has maintained its dominance in Boston and Cleveland. During the same period, Idaho improved its position in New Orleans, although it has been losing out in Chicago and St. Louis, largely to the Red River Valley area of Minnesota-North Dakota. California continued to be the major supplier in San Francisco and Los Angeles, although Washington made some gains in the San Francisco market, as Idaho and Oregon did in Los Angeles.

Between 1940 and 1952 (excluding 1941-45) in 5 of the 7 cities for which complete data are available, truck unloads of potatoes accounted for a generally increasing percentage of total unloads.

The greatest gains in truck traffic during this period occurred in Boston, San Francisco, and Los Angeles. In New York and St. Louis, trucks lost ground to the railroads. St. Louis now ranks with Chicago as an overwhelmingly rail city in comparative percentages of rail and truck unloads of potatoes. Data for unloads in Atlanta indicate that trucks regained their prewar position of dominance in that market.

In the postwar period, 7 of the 9 cities represented in the study showed an increasing percentage of truck unloads. In 1952, for example, there were four major movements in which trucks hauled more than 96 percent of the potatoes moving to market, whereas in 1946 they hauled less than 30 percent.

While the flexibility, speed, and convenience (pickup and delivery service) of trucks were undoubtedly important factors in this trend, it is widely believed that increases in rail freight rates also played an important part.

Railroad freight rates on potatoes for nine major markets increased 62 percent between the beginning of 1946 and June 1953. This percentage increase for the nine markets closely approximates that for the country as a whole. During 1946-52, the rate increase on potatoes for the entire country equaled 61 percent, as computed by the Bureau of Agricultural Economics.

Increases in railroad freight rates on potatoes for the nine markets in the postwar period ranged from 44 to 67 percent. St. Louis, Chicago, and Atlanta incurred the greatest percentage increases; Boston, New York and Cleveland the smallest.

Variations in the rate increases among the several cities may be explained by (1) differences in degree of competition with trucks, (2) regional differences in the percentage increases in certain of the several rate-level cases, and (3) variations in the application of specific maxima -- "holddowns" in trade parlance -- to these rate increases. An example of rate variance was the rate increase of only 44 percent for Boston as compared to 59 percent for the two next lowest cities, New York and Cleveland. The difference was primarily due to the lower rail freight rate maintained on Maine to Boston shipments as a means of countering truck competition.

The use of holddowns -- applying specific maxima to the percentage rate increases on a limited number of farm products -- has kept the rate increase on potatoes below that on all farm products, (62 percent for the nine markets or 61 percent for the country as a whole, compared to 70 percent for all farm products). But the rate increase on potatoes has been substantially above that on all fruits and vegetables.

The larger rate increase for potatoes (61 percent) as compared to that for all fruits and vegetables (45 percent) was due to (1) a large concentration of potato production in Eastern Territory -- the area with the greatest percentage increases in freight rates, (2) a relatively shorter average length of haul for potatoes than for several other fruits and vegetables whose production is more concentrated geographically, and (3) the fact that many high-valued fruits and vegetables travel on higher rates than the relatively low-valued potato. The last two reasons would tend to make the holddowns more effective on certain other fruits and vegetables than on potatoes.

Although one of the primary reasons for the holddowns was to give relief to long-haul producers when rates are increased by a fixed percentage, the rate differentials between long- and short-haul producers have continued to increase.

The rigidity of freight rates is revealed by the greater fluctuations in the wholesale prices of potatoes for the nine markets compared to the freight rates.

In 3½ years of the postwar period, the level of rail freight rates on potatoes compared to the base-period 1947-49 was well above the wholesale price level of potatoes.

A comparison of freight rates as a percentage of the wholesale price of potatoes in 1946 and the first 6 months of 1953 revealed that in only 3 supply sources of a total of 84 for the nine cities did the freight-rate percentage show a decline.

For those sources of supply that suffered sharp price declines in the first half of 1953, the ratio of freight rates to wholesale prices has increased substantially. Even for those sources of supply whose wholesale prices in 1953 are still well above the 1946 level, the increase in freight rates has exceeded the increase in wholesale prices. As a result, the ratio of freight rates to wholesale prices has continued to increase.

TREND OF PRODUCTION IN THE UNITED STATES

Potatoes are grown commercially in each of the 48 States. However, 12 of these States accounted for 75 percent of all potatoes produced in this country in 1951. 2/ The major production areas shown in the map (fig. 1) are easily discernible. Five Western States -- California, Oregon, Washington, Idaho, and Colorado; 4 Central States -- Minnesota, North Dakota, Wisconsin and Michigan; and 3 Eastern States -- New York, Pennsylvania, and Maine -- make up the principal producing areas.

In the last 20 years, production of potatoes in this country has undergone some rather drastic changes. The more important of these changes have been (1) a steady decline in acreage of potatoes, (2) a sharp increase in yield per acre, (3) a shift toward concentration of production in the hands of large commercial growers, and (4) a shift toward greater geographic specialization of potato production. As a result of the concentration of production, a sharp decline has occurred in the quantity of potatoes used for food and seed on farms where grown. At the same time farm sales have increased substantially. 3/ This latter factor, as well as increased geographic specialization, has tended to emphasize the importance of transportation.

2/ Production in thousands of bushels for the 12 States in 1951 was as follows: Maine, 44,500; Idaho, 36,680; California, 35,105; New York, 29,715; Pennsylvania, 16,215; North Dakota, 13,320; Colorado, 12,240; Minnesota, 11,900; Washington, 10,920; Michigan, 10,800; Oregon, 10,240; and Wisconsin, 9,805.

3/ See United States Bureau of Agricultural Economics, Potatoes: Acreage, Production, Value, Farm Disposition, January 1 Stocks (1866-1950), U. S. Dept. Agr. Statis. Bull. 122, March 1953.

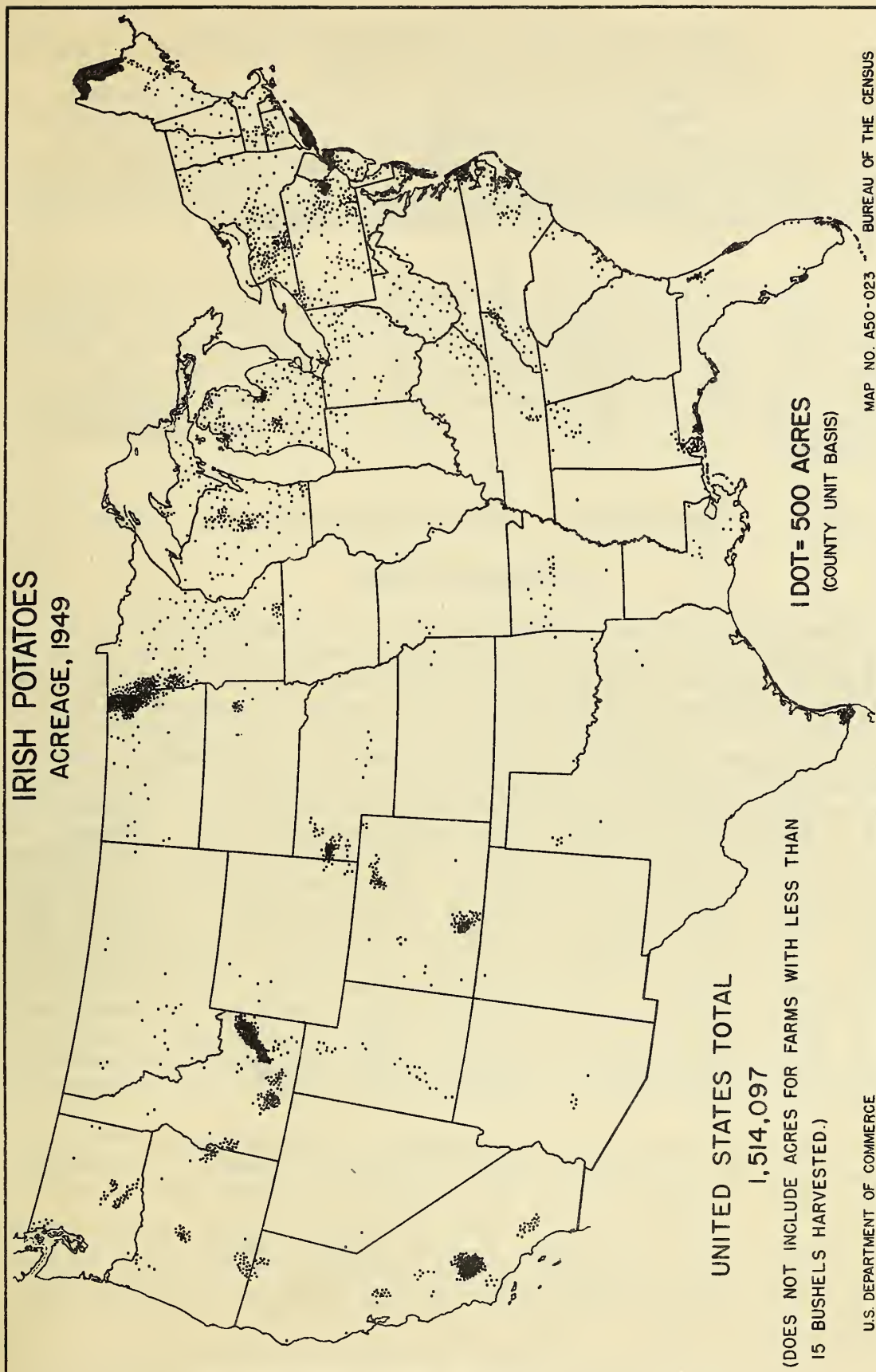


Figure 1

TREND IN PER CAPITA CONSUMPTION OF POTATOES

Per capita consumption of potatoes has also undergone a change, although over a somewhat longer time period than that associated with the previously mentioned changes in production. Although the per capita consumption of potatoes fluctuates with changes in production, since 1910 there has been a definite downward trend. From a peak figure of 195 pounds in 1910, per capita consumption had fallen to 104 pounds by 1951.

The decline in per capita consumption is due largely to changes in living habits, shifts in population from rural to urban areas, and improvements in the production, processing, and marketing of other vegetables and fruits. These improvements have greatly increased the availability of other vegetables and fruits. The growth in population has been sufficient to prevent a downward trend in total consumption of potatoes.

DISTRIBUTION OF SHIPMENTS BETWEEN MARKETS

By Source of Supply

Description of the traffic-flow pattern of potatoes for a number of large markets, and changes in this pattern, both as to sources of supply and type of carrier, will provide a useful introduction to the subsequent analysis of freight rates and prices. The source or sources of supply for potatoes to a particular market are the result of several factors, of which distance is only one. Potatoes are not a homogeneous commodity. They display differences in quality that are associated with such conditions as variety, growing area, methods of harvesting, and shipping. These differences in quality lead to differences in price. Consumer preference is an important influence in price relationships and in relative quantities of the various kinds of potatoes consumed in a market. Some markets, for instance, display a relatively strong preference for Idahos, others for potatoes from Maine or for the locally grown product. Shifts in sources of supply may result in changes in wholesale prices in respective markets. At the same time these changes in sources of supply may be due to changes in freight rates, which in turn may affect the proportionate share of the traffic hauled by each type of carrier. Obtaining an understanding of the distribution of carlot shipments between selected markets is a necessary first step in this analysis.

Table 1 indicates that the specialized producing areas tend to dominate the large markets. However, during the 7 years of the postwar period, there has been substantial shifting among these areas.

In 1946 Maine, for example, was the largest supplier in Boston, Atlanta and Cleveland; Idaho in Chicago and St. Louis; Colorado in New Orleans; New York in New York City; and California in Los Angeles and San Francisco.

Table 1.- Percentage distribution of unloads of potatoes, by source of supply, 9 selected markets, 1946-52

Boston							
Source of supply	1946	1947	1948	1949	1950	1951	1952
	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Maine	50	48	44	49	45	52	59
North Carolina	2	3	2	3	1	2	1
Virginia	4	5	4	8	5	4	4
New York	14	11	9	7	11	12	13
California	7	6	10	12	11	6	6
Florida	3	1	1	3	3	4	3
Massachusetts	1	1	1	2	3	1	
South Carolina	2	1	1/	1/	1/	1	1
Idaho	1	1/	1/	1	1	2	3
Washington	1	1	1	1	1	1	1
Rhode Island	1/	1/	6	4	2	1	2
Nearby truck	6	6	3	2	8	4	3
Canada	6	15	16	7	7	9	3
Other	3	2	3	1	2	1	1
Total	100	100	100	100	100	100	100
New York							
New York	41	44	45	36	36	38	34
Maine	23	21	23	28	35	28	34
Virginia	5	4	6	6	5	5	4
Florida	7	2	4	4	3	4	4
North Carolina	4	4	2	3	1	2	2
Idaho	6	5	5	7	7	9	8
South Carolina	3	2	1/	1	1	1	1/
New Jersey	1	2	1	1	1/	1	1/
California	8	8	7	7	7	5	6
Oregon	1/	1/	1	1	1	1	1
Washington	1	1	1/	1	1	1	2
Canada	1/	4	3	3	1	3	1
Other	1	3	3	2	2	2	4
Total	100	100	100	100	100	100	100

Continued

Table 1.- Percentage distribution of unloads of potatoes, by source of supply, 9 selected markets, 1946-52 - Continued

Source of supply	Atlanta						
	1946	1947	1948	1949	1950	1951	1952
	Percent	Percent	Percent	Percent	Percent	Percent	Percent
New Jersey	10	14	14	14	9	16	11
Georgia	9	7	4	4	3	2	2
Florida	11	8	8	11	13	11	15
Idaho	10	11	9	12	13	14	14
Maine	14	9	9	4	3	3	9
Alabama	8	6	11	7	9	6	5
Tennessee	3	4	5	3	1	1	1
Wisconsin	3	1	2	4	1	2	3
South Carolina	3	2	2	3	3	2	4
Colorado	2	1	1/	1	1	1/	3
North Carolina	2	6	5	5	3	4	4
North Dakota	6	4	7	4	1	1	1
Minnesota	3	3	2	2	1	1	2
New York	4	6	4	2	12	15	9
California	4	4	4	5	5	3	4
Pennsylvania	1/	1	4	4	7	7	4
Washington	2	1	1	1	1	2	1
Canada	---	3	2	5	7	2	1/
Other	6	9	7	9	7	8	8
Total	100	100	100	100	100	100	100
	New Orleans						
	1946	1947	1948	1949	1950	1951	1952
	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Louisiana	19	7	5	2/	2/	2/	2/
Idaho	19	16	17	22	26	27	26
Colorado	20	18	8	12	11	8	10
New York	3	8	3	2	8	7	3
Nebraska	7	8	9	9	12	12	9
Maine	1	1	2	1/	1	2	4
Florida	2	1	2	2	1	2	5
California	6	14	15	21	16	15	21
Texas	2	4	5	2	2	3	3
North Dakota	2	3	6	2	2	1	2
Alabama	5	3	3	2	3	4	3
Minnesota	1	5	12	5	3	3	3
Wisconsin	4	5	8	6	3	5	2
Washington	1	4	2	2	3	5	6
Other	8	3	3	13	9	6	3
Total	100	100	100	100	100	100	100

Continued

Table 1.- Percentage distribution of unloads of potatoes, by source of supply, 9 selected markets, 1946-52 - Continued

Cleveland							
Source of supply	1946	1947	1948	1949	1950	1951	1952
	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Maine	26	28	27	18	20	19	25
Idaho	9	10	10	11	13	17	16
Virginia	3	2	1	1	3	2	1
North Carolina	2	3	2	2	1	1	1
Florida	5	2	5	6	6	6	5
Alabama	3	2	2	1	1	2	1
California	17	20	25	25	23	18	19
New Jersey	4	2	1	1	1	2	1
South Carolina	1	1	1/	1/	1	2	1
Nebraska	1	1	1	1	1	3	2
Texas	2	2	1	1	1	1	1
New York	10	10	9	8	9	9	10
Minnesota	1	1/	1/	1	1	1	1
Pennsylvania	1	1	1	1	1	2	3
North Dakota	1/	1	1	1	1	1	1
Oregon	1	1	1	1	1	1	2
Washington	4	7	3	5	4	4	3
Arizona	1	1	1	1	1	1	1
Ohio	4	4	8	10	8	6	4
Other	5	2	1	5	3	2	2
Total	100	100	100	100	100	100	100
Chicago							
Idaho	26	20	22	24	22	22	24
North Dakota	11	9	12	10	11	13	17
Nebraska	6	5	3	3	3	2	1
California	13	13	17	16	16	14	13
Minnesota	5	7	8	6	7	10	9
Alabama	3	3	3	3	3	3	3
Wisconsin	5	6	6	8	9	12	9
Colorado	12	12	11	11	9	5	7
Louisiana	1	1/	1/	1/	1/	1/	1/
Texas	3	3	2	2	2	2	2
Michigan	1	1	1	1	2	3	1
Oregon	2	2	2	2	2	2	2
Florida	2	3	2	3	2	2	3
Indiana	1/	1/	1/	1/	1/	1	1/
North Carolina	1/	1/	1/	1	1/	1/	1/
Washington	5	9	3	6	6	5	6
South Carolina	1/	1/	---	1/	1/	1/	1/
Arizona	1	2	2	2	2	1	2
Other	4	5	6	2	4	3	1
Total	100	100	100	100	100	100	100

Continued

Table 1.- Percentage distribution of unloads of potatoes, by source of supply, 9 selected markets, 1946-52 - Continued

Source of supply	St. Louis						
	1946	1947	1948	1949	1950	1951	1952
	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Idaho	23	22	17	21	18	22	19
Nebraska	19	19	20	17	16	19	16
Minnesota	6	7	10	10	9	7	10
North Dakota	8	8	8	6	5	3	8
Alabama	7	6	5	5	6	8	6
Arkansas	2	2	2	2	1	1	1
California	10	12	12	14	11	7	9
Louisiana	2	1	1/	1/	1	1/	1/
Colorado	6	7	4	7	7	6	7
Texas	3	2	2	1	2	3	3
Missouri	1/	1	1	1	2	1/	1/
Wisconsin	1	2	3	4	6	9	7
Florida	1	1	1	1	1	1	3
Oregon	3	2	2	2	2	2	2
Maine	1/	1/	3	1/	1	1/	1
Washington	2	3	1	3	3	2	4
Nearby truck	2	1	1	2	1	1	1/
Other	5	4	8	4	8	9	4
Total	100	100	100	100	100	100	100
San Francisco							
California	53	59	63	59	55	55	52
Oregon	35	28	24	30	35	37	36
Idaho	6	5	8	5	3	3	5
Florida	2	1	1	1	1	1/	1
Washington	1/	3	1	3	4	3	3
Nevada	2	2	1	1	2	2	1
Other	2	2	2	1	1/	1/	2
Total	100	100	100	100	100	100	100
Los Angeles							
California	68	73	73	70	69	68	63
Idaho	21	18	20	22	19	21	26
Oregon	3	3	2	3	7	5	7
Utah	6	5	4	5	5	6	2
Other	2	1	1	1/	1/	1/	2
Total	100	100	100	100	100	100	100

1/ Less than 0.5 percent.

2/ Unload data not reported.

Unload data was obtained from Production and Marketing Administration.

By 1952, this picture had changed considerably. Maine was still the dominant supplier in Boston and Cleveland. In addition, Maine ranked with New York State as a principal supplier in New York City, but it did not keep pace in the expanding Atlanta market. In that city, it lost ground largely to Florida, Idaho, New Jersey, and New York.

Although Idaho continued to be the largest supplier in Chicago, its position is threatened by the Red River Valley area of Minnesota and North Dakota. In fact, the combined carlot unloads from these States exceeded Idaho unloads in Chicago in both 1951 and 1952. 4/

Similarly, in St. Louis, Idaho has lost ground to the Red River Valley area and Wisconsin. In 1948, unloads from the Red River Valley exceeded unloads from Idaho, while in 1952 they were only 69 less than the Idaho figure.

In the New Orleans market, Idaho potatoes predominate, largely at the expense of Colorado and Louisiana potatoes. 5/

In the two West Coast cities -- Los Angeles and San Francisco -- California continued to supply the lion's share of the unloads, although Washington has made some gains in the San Francisco market, as have Idaho and Oregon in Los Angeles.

During the 7 years, the trend in total unloads for each of the nine cities was generally upward, with the exception of Boston and San Francisco. 6/ Although total production and unloads were down somewhat for the main source of supply in each of the two cities (Maine for Boston and California for San Francisco), the decline in unloads from these two principal suppliers was not offset by any sizable increase from other sources of supply.

4/ As average Idaho production in 1950-52 exceeded that of the previous 5 years (1945-49), reduction in unloads cannot be attributed to small crops during this period.

5/ Although the reduction in Louisiana unloads since 1949 cannot be ascertained because of incomplete truck data, the sharp drop in total production in this State from 1947 to 1952, indicates that the 1946-48 trend in unloads undoubtedly has continued.

6/ While Cleveland also showed a decline during this period, this decline was due to the relatively large number of unloads received in Cleveland in the base-year 1946. For example, total unloads of potatoes in Cleveland in 1946 exceeded those of any year between 1940 and 1952. Since 1940 there has been a generally upward trend in total unloads of potatoes in the Cleveland market. In contrast, the trend in both Boston and San Francisco has been generally downward.

Both cities have increased in population during this period, particularly San Francisco. Probably at least a part of the decline in total unloads of potatoes is a reflection of a shift from potatoes to other types of foods.

Atlanta has shown the greatest percentage increase and the most consistent pattern in its unloads. Its unloads of potatoes have increased each year, from 2,461 carlots in 1946 to 3,759 carlots in 1952. 7/ This amounts to a 53-percent increase.

By Type of Carrier

The increasing volume of agricultural products hauled by trucks in recent years is exemplified by table 2. Percentages for the prewar year 1940 are also included in this table, as it is doubtful whether the motor carrier industry in 1946 had fully recovered from the effects of gas rationing, equipment shortages, and repair difficulties so prevalent in World War II.

Between 1940 and 1952 (excluding 1941-45) in five of the seven cities for which complete data are available, truck unloads of potatoes accounted for a generally increasing percentage of total unloads.

The greatest gains in truck traffic during this period occurred in Boston, San Francisco, and Los Angeles. In New York and St. Louis, trucks have lost ground to the railroads. St. Louis now ranks with Chicago as overwhelmingly a rail city when percentages of rail and truck unloads of potatoes are compared. The data on unloads for Atlanta indicate that trucks have regained their prewar position of dominance in that market.

Boat unloads were of some importance in the prewar period in Boston, New York, New Orleans, and San Francisco. By 1952, however, only New York retained this type of movement. Even here boat shipments were sporadic. In one postwar year, no boat unloads of potatoes were recorded, and in four of the other years, boat unloads were no greater than 1 percent of total unloads. The increase in boat unloads in 1952 was undoubtedly caused by the overall shortage of potatoes during the second quarter of that year. For example, 694 boat carlot equivalents of potatoes came from Spain during that year.

The virtual disappearance of boat shipments at these port cities reflects the general decline in coastwise and intercoastal shipping in the postwar period. With high costs of labor in ship construction and operation and in cargo handling which resulted in high water rates, the differential between boat and rail and truck rates were insufficient to offset the slower service of the water carriers.

7/ See appendix table 14, pp. 43-45.

Table 2.- Percentage distribution of unloads of potatoes, by type of carrier, 9 selected markets, 1940 and 1946-52

Market and type of carrier:	1940	1946	1947	1948	1949	1950	1951	1952
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Boston								
Rail	79	92	87	75	62	65	69	63
Truck	13	8	13	25	38	35	31	37
Boat	8	---	---	---	---	---	---	---
Total	100	100	100	100	100	100	100	100
New York								
Rail	44	56	52	45	51	54	51	53
Truck	51	44	48	55	49	46	49	43
Boat	5	---	1/	---	1/	1/	1/	4
Total	100	100	100	100	100	100	100	100
Atlanta								
Rail	37	73	65	47	39	32	31	35
Truck	63	27	35	53	61	68	69	65
Total	100	100	100	100	100	100	100	100
New Orleans								
Rail	33	84	89	89	82	77	76	78
Truck	38	15	11	11	2/ 14	2/ 22	2/ 24	2/ 22
Boat	29	1	1/	---	4	1	---	---
Total	100	100	100	100	100	100	100	100
Cleveland								
Rail	100	88	90	82	75	78	79	81
Truck	3/	12	10	18	25	22	21	19
Total	100	100	100	100	100	100	100	100
Chicago								
Rail	98	100	100	100	99	99	95	97
Truck	2	1/	1/	1/	1	1	5	3
Total	100	100	100	100	100	100	100	100
St. Louis								
Rail	82	95	96	95	95	93	94	97
Truck	18	5	4	5	5	7	6	3
Total	100	100	100	100	100	100	100	100
San Francisco								
Rail	65	74	72	67	68	63	64	59
Truck	25	26	28	33	32	37	36	41
Boat	10	---	---	---	---	---	---	---
Total	100	100	100	100	100	100	100	100
Los Angeles								
Rail	41	43	35	34	32	27	31	39
Truck	59	57	65	66	68	73	69	61
Boat	1/	---	---	---	---	---	---	---
Total	100	100	100	100	100	100	100	100

1/ Less than 0.5 percent.

2/ Truck unloads for Louisiana potatoes not reported.

3/ Truck data not reported.

In the postwar period, seven of the nine cities show an increasing percentage of truck unloads. In addition to the cities previously mentioned, both Cleveland and New Orleans had increases in truck unloads.

Table 3 illustrates the increasing importance of truck transportation of potatoes for several major supply sources to selected markets. Whereas truck unloads as percentages of total unloads for these major movements ranged from 0 to 54 percent in 1946, by 1952 trucks were hauling from 18 to 100 percent of this potato traffic.

Table 3.- Truck unloads as percentage of total unloads, by source of supply, selected markets, 1946 and 1952 ^{1/}

Source of supply	Market	Truck unloads as percentage	
		of total unloads	
		1946	1952
		Percent	Percent
New Jersey	Atlanta	14.0	100
New York	Atlanta	0	99
New York	Boston	2.0	97
New York	Cleveland	28.0	97
Florida	Atlanta	54.0	96
Florida	New York	.4	37
Maine	Boston	3.0	25
Idaho	Los Angeles	1.0	19
Wisconsin	Chicago	.8	18

^{1/} Only movements with an increase in truck unloads of 200 carlots or more were used in computing percentages.

Trucks are obtaining an increasing share of the traffic, although potatoes are rather well adapted to rail haulage for the following reasons: they are relatively low in value; tend to load heavily; have several large concentrated producing areas; and are not as perishable as many other fruits and vegetables. This increase in transportation of potatoes by truck in recent years has occurred, in many instances, at the expense of the railroads. ^{8/}

The flexibility and convenience of trucks in pickup and delivery services have been important factors in this movement, yet it is evident that increases in rail freight rates have also played a part. In the 402-mile Maine-to-Boston haul, for example, the railroads still dominate in about a 3 to 1 ratio, even though truck traffic in 1952 had increased by nearly 1,000 carlots over that in 1946. ^{9/}

^{8/} See Church, Donald E. and Snitzler, James R., Trucks Haul Increased Share of Fruit and Vegetable Traffic. Bur. Agr. Econ., Apr. 1953.

^{9/} In 1946, rail carlots from Maine to Boston totaled 3,685 and truckloads 132. In 1952, rail carlots totaled 3,092, and truckloads 1,054 (see appendix table 12, pp. 39, 40).

Railroads are highly vulnerable to truck competition in hauls up to 500 miles, 10/ but they have been rather successful in retaining a large part of the Maine-to-Boston haul, by keeping their rates low. 11/ If the railroads had applied the full rate increases authorized since 1946, diversion of this traffic to trucks would probably have been much greater.

A similar effort on the part of railroads to maintain low rates on potato traffic in other areas might have lessened the diversion to trucks in those areas.

GENERAL RATE LEVEL INCREASES AND HOLDDOWNS AFFECT THE COMPETITIVE POSITIONS OF PRODUCERS AND SHIPPERS

Comparison of Rate Increases on Potatoes With All Fruits and Vegetables

Since the end of World War II, railroad freight rates on farm products have increased approximately 70 percent. During the same period railroad freight rates on potatoes increased 61 percent.

The use of holddowns (applying certain maxima to the rate increases on various agricultural products, including fruits and vegetables), has kept the increase in freight rates on potatoes below that for farm products as a whole.

But holddowns have not been nearly as effective in offsetting rate increases for potatoes as they have for all fruits and vegetables. For example, from 1946 to 1952, freight rates on fruits and vegetables increased only 45 percent, which was approximately 75 percent of the rate of increase on potatoes.

There are three principal reasons for this difference in percentage increases.

First, in some of the general rate-level increases, rates in Official Territory (roughly the area east of the Mississippi River and north of the Potomac and Ohio Rivers) were increased more than those in other territories. 12/ As approximately 43 percent of all potatoes grown in the United States are produced in this area (average production,

10/ Purcell, Margaret R., Length of Haul to Leading Markets by Motor-truck, 1941 and 1950. Bur. Agr. Econ. June 1953.

11/ Rail freight rates from Maine to Boston increased only 32 percent in the postwar period. In contrast, rail freight rates on potatoes from all origins to Boston increased 44 percent. For further discussion of this matter, see pp. 22, 23.

12/ See Increased Railway Rates, Taxes and Charges 1946, 266 ICC 537, Increased Freight Rates, 1947, 270 ICC 93.

1941-50), this higher intraterritorial rate level would tend to raise the general level of rates on potatoes more than the level of rates for fruits and vegetables produced in other areas.

Second, rail rates on potatoes increased more than those on all fruits and vegetables because of variations in the location of producing areas. Despite the trend toward geographic specialization of potato production in recent years, potatoes are still commercially grown in every State in the Union. In contrast, production of such fruits and vegetables as oranges and grapefruit, apples, grapes, lettuce, and celery is relatively concentrated. As a result, these commodities require a generally longer length of haul than potatoes for nationwide distribution. ^{13/} The maximum freight-rate increases -- holddowns -- are thus applied to a larger proportion of the traffic of these commodities than of potatoes.

Third, many high-valued fruits and vegetables move on higher rates than those of the relatively low-valued potato. Holddowns on these higher rates thus result in a lower percentage increase. This fact is illustrated in the accompanying tabulation in which the 12-cent maxima prescribed in the latest general rate increase (Ex Parte No. 175) are applied to several fruits and vegetables moving from points of origin in California to Chicago (table 4). The application of all the holddowns

Table 4.- Freight rates, before and after Ex Parte No. 175 was applied, by specified commodities

Commodity	Rate per 100 pounds		
	Before	After ^{1/}	Percentage
			increase
	Dollars	Dollars	Percent
Grapes and peaches	1.92	2.04	6.2
Lettuce and celery	1.85	1.97	6.5
Grapefruit, lemons, and oranges	1.73	1.85	6.9
Apples	1.57	1.69	7.6
Potatoes	1.34	1.46	9.0

^{1/} 12 cent maxima applied.

^{13/} In 1948 average length of haul, short-line, for several fruits and vegetables were as follows:

Commodity	Length of haul, short-line Miles
Lettuce	2,247
Apples	1,950
Oranges and grapefruit	1,591
Potatoes	823

Church, Donald E., Effect of Increases in Freight Rates on Agricultural Products. Bur. Agr. Econ. Apr. 1950.

specified in the various rate-level increases would show much greater differences than those indicated in the tabulation.

Comparison of Rail Freight Increases With and Without Holddowns

Of the 12 general rate increases that have been authorized for railroads since July 1, 1946, all but 3 have contained holddowns on fruits and vegetables -- including potatoes. 14/ The extent of the holddowns on selected movements of potatoes is shown in table 5. Here the actual rail freight rates in effect on June 30, 1946 (just before the first postwar general rate increase), are compared to the actual rail rates in effect on May 2, 1952. 15/ All holddowns are included

Table 5.- Actual and hypothetical rail freight rates for selected movement of potatoes, June 30, 1946 and May 2, 1952 1/

		Rate per 100 pounds					
		Actual		Hypothetical		Difference	
		: Without:		: Without:		: between	
Origin:	Market	June 30,	hold-	Percent-	hold-	Percent-	actual and
		1946	downs	age	downs	age	hypothetical
		May 2,	increase	May 2,	increase	percentage	
		1952		1952		increase	
		Cents	Cents	Percent	Cents	Percent	Percent
Maine	New Orleans	104	158	52	189	82	30
Idaho	Atlanta	103	157	52	185	80	28
Calif.	Chicago	92	146	59	166	80	21
Maine	Cleveland 2/	67	118	76	127	90	14
Fla.	Chicago 3/	73	125	71	133	82	11
Calif.	St. Louis 3/	86	140	63	147	71	8

1/ Based on "holddowns" in effect from June 30, 1946 to May 2, 1952.

2/ Holddowns were not applied until May 6, 1948 (Ex Parte 166), as the percentage increases were equal to but did not exceed the prescribed maxima prior to this date.

3/ Holddowns were not applied until May 2, 1952 (Ex Parte 175), as the percentage increases were equal to but did not exceed the prescribed maxima prior to this date.

14/ The justification for holddowns on farm products stemmed from (1) the fear that the rates in certain agricultural areas would become so high as to prohibit the movement of farm products to the more distant markets, (2) the desire on the part of the railroads, in certain instances, to keep their rates in line with truck rates in order to prevent so far as possible mass diversion of agricultural rail traffic to trucks, and (3) the implementation of congressional policy under the Hoch-Smith resolution, which was designed primarily to relieve agricultural distress. The Interstate Commerce Commission has given consideration to this resolution in the following cases, among others, General Commodity Rate Increases, 1937, 223 ICC 657, 746 (1937); Fifteen Percent Case, 1937-1938, 226 ICC 41, 77 (1938); Increased Railway Rates, Fares and Charges, 1942, 248 ICC 545 (1942). Increased Freight Rates, 1948, 272 ICC 695.

15/ The date the last general rate increase (Ex Parte 175) became effective.

when applicable. At the same time, hypothetical rail rates (in each case the full percentage increases have been applied without regard to the prescribed maxima) have been computed and are compared with the actual rates and percentage changes in these rates. The variations in the hypothetical percentage increases for the several movements are due to differences in the general increases in rate level authorized for the various rate-making territories. 16/

As shown by table 5, differences between the actual percentage increase (with holddowns) and the hypothetical increase (without holddowns) range from 8 to 30 percent. Holddowns have been most effective on movements from Maine to New Orleans, Idaho to Atlanta, and California to Chicago. In other words, holddowns are most effective on the very long hauls, which move within and between those rate-making territories that were granted the largest increases in rates.

Although the California to St. Louis movement is a relatively long haul -- approximately 1,900 miles -- the small difference between the actual and hypothetical percentage increase is due to the smaller rate increases granted Western Territory. Traditionally, the rate level in this territory and in Southern Territory has been higher than in Eastern Territory. In the postwar general rate increases, the Interstate Commerce Commission varied the rate increases, within and between these major rate-making territories in an attempt to equalize the rate levels of these three territories.

Rate Differentials Between Long- and Short-Haul Producers

Despite the application of fairly substantial holddowns to the postwar general increases in rail rates, the rate differentials between long- and short-haul producers of potatoes have continued to increase (table 6).

For example, the rate differential in the Chicago market between Wisconsin and California producers equaled \$0.73 in 1946. But by April 1, 1953, this differential had increased to \$1.07 -- almost half again as large as that of the earlier year.

Similarly, in 1946, the Red River Valley (Minnesota-North Dakota) had a 34-cent rate advantage over Idaho in the Chicago market; while the rate advantage of Wisconsin over Idaho in the same market equaled \$0.54. By 1953, these rate advantages, that is, rate differentials, had increased to \$0.54 and \$0.87, respectively.

A similar pattern of increasing rate differentials is revealed for New York City. Here the rate differential between New York State (largely Long Island) and such suppliers as Florida, Idaho, Washington, and

16/ In Ex Parte 166, (May 6, 1948), rate increases ranged from 20 to 30 percent and in Ex Parte 168 (September 1, 1949) from 8 to 10 percent within and between the specified rate-making territories. Eastern Territory received the largest increases and Western Territory the smallest.

Table 6.- Freight rate on potatoes and effect of increase upon rate differential, by source of supply, Chicago and New York City, 1946 and 1953

Chicago				
Source of supply	Rate per 100 pounds			
	1946 1/	1953 2/	Excess over lowest origin	
			1946	1953
	Cents	Cents	Cents	Cents
Wisconsin	21	39	---	---
Michigan	34	62	13	23
Minnesota-N. Dak.	41	74	20	35
Nebraska	52	92	31	53
North Carolina	61	107	40	68
Colorado	62	108	41	69
Alabama	63	110	42	71
Louisiana	71	122	50	83
Florida	75	125	54	86
Idaho	75	126	54	87
Texas	83	138	62	99
Oregon	89	142	68	103
California	94	146	73	107
Washington	94	146	73	107
Arizona	94	146	73	107
New York City				
New York	24	43	---	---
Virginia	32	59	8	16
North Carolina	41	71	17	28
Maine	48	76	24	33
Florida	72	122	48	79
Idaho	109	161	85	118
Washington	130	182	106	139
California	130	182	106	139

- 1/ Annual average freight rate weighted by number of days in effect.
 2/ First 6 months only.

California ranged from \$0.48 to \$1.06. By 1953, the rate differentials between New York State and these more distant sources of supply ranged from \$0.79 to \$1.39.

With prices of potatoes sharply declining, these widening rate differentials will tend to increase the difficulties of the more distant producers in reaching adequate markets for their crop. ^{17/}

FREIGHT RATES AND WHOLESALE PRICES OF POTATOES

A freight rate is the price charged for transporting an article from one place to another. It is usually quoted in cents per hundred pounds. It differs from the transportation charges for a shipment, a term that includes not only the freight rate but also accessorial services and the 3-percent Federal transportation tax. ^{18/} Because of the difficulty in correctly ascertaining these additional charges, as well as the fact that the freight rate makes up most of the total transportation charges, this study assumes that freight rates are representative of total transportation charges.

Calculation of the Index of Freight Rates on Potatoes

An index of freight rates is designed to show changes in the rate alone. The index of freight rates for potatoes is an arithmetic average of changes in freight rates. In weighting these averages consideration was given to tonnage movement on the different rates, either through the assignment of constant weights governed by total carlot unloads, or through distribution of the number of rates included for different areas or States in rough accordance with carlot shipments.

By relating the changes in freight rates in the time series to the generally accepted postwar base-period 1947-49, a more satisfactory analysis of the effect of forces on the increases in rates can be made than by presenting the data on rates in their original form. Then, too, constructing an index of freight rates and a subsequent index of wholesale prices also facilitates comparison of the trends of these two series. The rate relatives are based on the average of rates successively

^{17/} Between August 15, 1952 and June 15, 1953, average prices received by growers of potatoes fell from \$2.77 to \$1.02 per bushel. The June 15, 1953, price of \$1.02 per bushel is 67 percent below that of June 15, 1952, and 36 percent below the average price received by growers of potatoes from January 1947 to December 1949.

^{18/} Accessorial services include the following activities which ordinarily involve a special charge over and above the freight rate: Storage, demurrage, drayage, lighterage, reconsignment and diversion, icing and heating, inspecting, and grading.

in effect during the calendar year. In arriving at the annual averages, successively applicable rates are weighted in proportion to the number of days the rate was effective. ^{19/}

Rates used for the individual movements apply to carlot shipments with the highest minimum weight, that is, the lowest rail freight rate which was in effect at the time. The index of freight rates for 1953 consists of rail rates in effect during the first 6 months of the year.

Weights used in the index are arithmetic averages of the 1947-49 total rail, boat, and truck unloads of potatoes from each origin to each of the selected markets. Although it would have been desirable to calculate separate indexes of rail and truck rates, applying truck rates against truck unloads, this procedure was not practicable. For the most part, charges for trucking are not available. Most of the truck hauling of potatoes is done by agricultural exempt carriers, that is, carriers of farm products who are not subject to rate regulation by the Interstate Commerce Commission. These rates are therefore the result of bargaining by each carrier and each shipper and are often not published. However, it is generally believed that changes in rail rates are a fair approximation of changes in truck rates, at least on the longer hauls. The use of

^{19/} The formula used for this type of weighted aggregative index is:

$$R_{y_o} = \frac{r_{y1} q_{o1} + r_{y2} q_{o2} + r_{y3} q_{o3} + \dots + r_{yn} q_{on}}{r_{o1} q_{o1} + r_{o2} q_{o2} + r_{o3} q_{o3} + \dots + r_{on} q_{on}}$$

Where:

R_{y_o} = index numbers for potatoes in a given year y, the year being compared to the base period o.

r_{y1} = annual average rate in year y for movement 1.

r_{y2} = annual average rate in year y for movement 2.

r_{o1} = annual average rate in year o for movement 1.

r_{o2} = annual average rate in year o for movement 2.

$q_1 q_2$ = base period quantities as weights for movements 1, 2, ...

The weighted aggregative method of constructing index numbers has received general application. The Bureau of Agricultural Economics uses it in computing indexes of prices received and of prices paid by farmers. The United States Bureau of Labor Statistics also uses this method in computing its indexes of wholesale commodity prices and of retail food prices.

boat rates would have affected the index very little, as boat traffic in potatoes in the postwar period has been insignificant.

The nine markets were selected on the basis of geographic location, size, and completeness of carlot-unload data. The index of freight rates is made up of origin-to-market movements approximating 90 percent of the total unloads for each of the selected cities.

The representativeness of the index to the universe is indicated by the fact that it shows a rate increase of 59 percent for the nine markets, 1946-52, compared to a rate increase on potatoes during the same period of 61 percent for the country as a whole.

Variations in the Freight-Rate Index

The index of freight rates for the nine markets indicates increases during the period ranging from 44 to 67 percent (table 7). St. Louis, with the greatest percentage increase, is followed closely by Chicago and Atlanta. San Francisco and Los Angeles had the same percentage increase, as did New York and Cleveland. The increase in rates was least to Boston. In fact, the percentage rate increase for Boston was substantially below that for the other cities. The percentage rate increases for the other eight cities fall within a range of 59 to 67 percent, in contrast to Boston's 44 percent. The percentage rate increases for the two southern cities exceeded 60 percent, Atlanta exceeding New Orleans.

In 1946 the freight rate indexes for the several cities varied only slightly, but by 1949, the freight rate index for Boston was well below those of the other selected cities. 20/ This discrepancy became more pronounced in later years.

Variations in the rate increases between the several cities may be explained by variations in truck competition, by regional differences in the percentage increases in certain of the general rate-level cases, and by variations in the application of specific maxima (holddowns) to these rate increases.

The lower percentage increase in freight rates on potatoes for Boston is largely the result of low rail freight rates maintained on Maine-to-Boston shipments. For New York City, also, relatively low freight rates on potatoes from Maine, because of truck competition, kept the freight-rate index from rising as rapidly as those for some of the other cities. 21/

20/ In contrast, Boston's freight-rate index in 1948 was the highest of the nine cities. Up until this time, the railroads had taken the full rate increases on shipments to Boston.

21/ Maine not only dominates the Boston potato market, it also ranks with New York State as a principal supplier for New York City.

Table 7.- Index numbers of freight rates, potatoes, 9 selected markets, 1946-53 1/

Market	1947-49 = 100										Percent change 1953 over 1946
	1946	1947	1948	1949	1950	1951	1952	1953	2/		
Boston	78	88	105	107	103	107	113	112		44	
New York	76	86	103	111	110	112	120	122		59	
Atlanta	76	87	103	110	112	115	123	125		65	
New Orleans	76	88	103	109	112	114	121	123		62	
Cleveland	77	87	103	109	111	114	121	122		59	
Chicago	75	87	103	110	112	115	123	125		66	
St. Louis	75	87	103	109	112	115	123	126		67	
San Francisco	77	88	103	109	111	114	123	127		64	
Los Angeles	76	88	103	108	111	111	121	125		64	

1/ Only rail rates are used, weighted by 1947-49 average carlot unloads, which include all types of carriers.

2/ Based on first 6 months of 1953.

The lower percentage increase in freight rates for Cleveland is explained by the fact that its average length of haul from principal sources of supply is greater than that of the other nine cities; consequently the holdowns on the rate increases are more effective. 22/

One indication of the effectiveness of these holdowns in maintaining relatively lower freight rates for Cleveland is to compare percentage increases in freight rates on long- versus short-haul producers. For example, in 1952, Cleveland obtained 40 percent of its total unloads from Idaho, California, Washington, and Oregon. The percentage increase in freight rates for these States in contrast to other sources of supply for Cleveland are shown in table 8.

Table 8.- Freight rate on potatoes, by selected source of supply, Cleveland, 1946 and 1953

Source of supply:	Freight rate per 100 pounds			Percentage change
	1946 1/	1953 2/		
	Cents	Cents		Percent
California	114	166		46
Washington	114	166		46
Oregon	108	161		49
Idaho	92	144		57
Maine	70	118		69
Virginia	44	78		77
New York	44	80		82
Pennsylvania	29	53		83

1/ Annual average freight rate weighted by number of days in effect.

2/ First 6 months only.

22/ The weighted average length of haul in miles for each city is as follows:

New Orleans	1,512	Cleveland	1,406
Chicago	1,343	St. Louis	1,172
Atlanta	1,028	Boston	784
New York City	683	San Francisco	416
Los Angeles	322		

(Only the base-period sources of supply were used in computing a weighted average length of haul for each city.) The length of haul for New Orleans is somewhat exaggerated, because lack of data on truck unloads made it impossible to give full weight to Louisiana in arriving at an average length of haul weighted by 1947-49 unloads. If full weight had been given this local source of supply, the New Orleans average length of haul would more nearly have equaled that of Chicago than of Cleveland.

In St. Louis and Chicago, two of the three cities with the largest percentage increases in freight rates, truck competition for the potato traffic is negligible. In both cities railroads have hauled more than 90 percent of the potato traffic in the postwar period. Truck competition as a rate-reduction factor thus has had little or no influence in these markets.

Besides the lack of truck competition, the higher percentage increases in Official Territory would tend to keep the rate index for Chicago above the freight-rate indexes of southern and western cities. This would not apply to St. Louis, as it is in Western Territory. As previously mentioned, this area had the smallest percentage increase in its intraterritorial rates.

These regional differences in percentage increases would tend to keep the rates for St. Louis lower than those for Chicago, but this tendency was more than offset by a longer average length of haul for Chicago, ^{23/} thus making possible a greater application of holddowns to Chicago's sources of supply.

The relatively greater percentage increase in freight rates for Atlanta as compared to New Orleans is due primarily to a much longer average length of haul for the latter city. ^{24/} Once again, as a result of this factor, holddowns would be more effective on the New Orleans potato traffic.

Calculation of the Index of Wholesale Prices

Changes in the wholesale prices in central markets are of concern to farmers because, typically, prices received by farmers are determined by the central-market price less transportation and other marketing charges. With the construction of an index of wholesale prices of potatoes corresponding to the index numbers on freight rates, it is possible to compare trends in rates with trends in prices.

Wholesale prices used in the index were obtained from the Production and Marketing Administration of the United States Department of Agriculture. The prices represent private sales in less than carlot quantities and are generally made by the first seller in the terminal market. Prices shown are for stock of good merchantable quality and condition -- U. S. No. 1 grade, generally size A.

^{23/} See footnote 22.

^{24/} Ibid.

The method employed in the construction of an index of wholesale prices on potatoes follows that previously used in preparing the index of freight rates on potatoes. 25/

An average monthly wholesale price for each origin was obtained by a simple average of representative prices for Monday of each week during the month. 26/ An annual average wholesale price for each origin in the nine markets was then computed by weighting the average monthly wholesale price by the monthly unloads received in each market from that particular origin. The annual average wholesale price was computed for each market by weighting the individual prices within the market by the same quantity weights used in the index of freight rates on potatoes. The index numbers were obtained by a simple average of these price relatives.

In obtaining the combined indexes of wholesale prices on potatoes, the annual average wholesale price for each market was weighted by its respective constant weight aggregate.

The index of wholesale prices is constructed on a calendar-year basis and includes the first 6 months of 1953. The price index for this latter period is unadjusted for seasonal variation.

25/ The formula for the weighted aggregate index which is the same as that used in the index of freight rates is:

$$P_{y0} = \frac{p_{y1} q_{o1} + p_{y2} q_{o2} + p_{y3} q_{o3} + \dots + p_{yn} q_{on}}{p_{o1} q_{o1} + p_{o2} q_{o2} + p_{o3} q_{o3} + \dots + p_{on} q_{on}}$$

Where:

P_{y0} = index numbers for potatoes in a given year y, the year being compared to the base period o.

p_{y1} = annual average wholesale price in year y for supply source 1.

p_{y2} = annual average wholesale price in year y for supply source 2.

p_{o1} = annual average wholesale price in year o for supply source 1.

p_{o2} = annual average wholesale price in year o for supply source 2.

$q_1 q_2$ = base-period quantities as weights for wholesale prices of supply source 1, 2, ...

26/ This method is used by the Production and Marketing Administration in computing monthly average wholesale prices of fruits and vegetables at New York City and Chicago. See Walsh, Lillian, Wholesale Prices of Fresh Fruits and Vegetables, and Auction Prices of Fresh Fruits at New York City and Chicago and f.o.b. Prices at Leading Shipping Points, by Months, 1951.

From the standpoint of seasonal variation, the index of prices for this period is somewhat conservative, as potato prices in the first 6 months of any year are typically higher than those in the last 6 months. 27/ But the cyclical downward movement of potato prices in the first half of 1953 more than offset the upward bias in prices caused by the seasonal factor.

Whether the wholesale price index of potatoes for 1953 is above or below the index for the first 6 months is not relevant to this study. However, all evidence indicates that the 1953 wholesale price index of potatoes for the entire year will be substantially below the 1952 wholesale price index, and thus well below the 1953 freight-rate index.

Variations in the Wholesale Price Index

Although the variations in the index numbers of wholesale prices of potatoes among the large markets are somewhat greater than the variations in the index numbers of freight rates, each market has followed the same general pattern of increases and declines in prices (table 9).

The variations in the price indexes among the nine markets are caused by differences in income, consumer preference, and rate levels. As the selected markets are rather widely dispersed throughout the country, regional differences in the factors mentioned above would be reflected in the wholesale price levels of the respective cities. Whether any one of these factors has greater influence in one market than in another is difficult, if not impossible, to ascertain. It is more likely that the price levels are the result of the interaction of all three forces.

For example, the lower price indexes in Boston and New York from 1950 to 1953, with the exception of 1952, may reflect the relatively lower freight-rate increases on potatoes for these cities compared to the others in the study. 28/

27/ For example, only in 1947 and 1950 were the wholesale prices of potatoes in each of the nine markets lower in the first half of the year than in the last half.

28/ The very high price level of potatoes in Boston in 1952, followed by an extremely sharp decline in the first half of 1953, reflects the uncertain market conditions that have faced Maine growers in the last several months. Prices of potatoes began to weaken as early as the late summer of 1952. (The annual average wholesale prices as shown by the price indexes does not indicate this fact, as the high prices in the first half of 1952 tended to offset the later price decline.) Maine potato growers held over large stocks of their 1952 crop in anticipation of higher prices in the first half of 1953. But with a large crop from the early States in 1953, prices of Maine Potatoes declined sharply.

Table 9.- Index numbers of wholesale prices of potatoes, 9 selected markets, 1946-53 ^{1/}

Market	1946	1947	1948	1949	1950	1951	1952	1953 ^{2/}
Boston	87	94	106	100	73	85	147	78
New York	85	94	105	101	71	84	146	93
Atlanta	100	98	99	103	83	100	146	98
New Orleans	82	97	104	99	85	97	139	118
Cleveland	90	98	110	92	86	93	144	102
Chicago	77	95	104	101	82	95	134	97
St. Louis	82	95	104	101	83	92	139	99
San Francisco	85	99	107	93	82	94	128	104
Los Angeles	85	99	105	96	80	93	132	110

^{1/} Includes wholesale prices in less than carlot quantities of U. S. No. 1 size, generally grade A.

^{2/} Based on first 6 months of 1953.

The relatively high price level of potatoes in Atlanta in the postwar period (with the exception of the first 6 months of 1953) may also reflect its high rate level relative to the base-period 1947-49. The substantial decline in the 1953 price level for Atlanta is largely the result of a sharp drop in prices of potatoes from Maine, New York, New Jersey, and California. All of these States are major suppliers in the Atlanta market.

The smaller price decline for the New Orleans market in the first 6 months of 1953 in contrast to the other major cities reflects the importance of Idaho potatoes in this market. Apparently because of certain tangible and intangible factors encompassed in the term "consumer preference," the demand for potatoes from Idaho has not declined as greatly during the last 6 to 10 months as have potatoes from other major sources of supply.

Trends in Freight Rates and Wholesale Prices Since World War II

This study recognizes that freight rates are only one of the many costs which confront producers and that in some cases they are substituted for other costs of production, nevertheless a comparison of freight rates and prices over a period of time indicates the degree to which costs of movement to market affect the economic position of the farmer.

Figure 2, which shows freight rates and wholesale prices of potatoes, illustrates the one-way flexibility of freight rates. In the 3 calendar-years 1949-51, and in the first half of 1953, the level of freight rates (compared to the base-period 1947-49) was well above the level of prices. ^{29/}

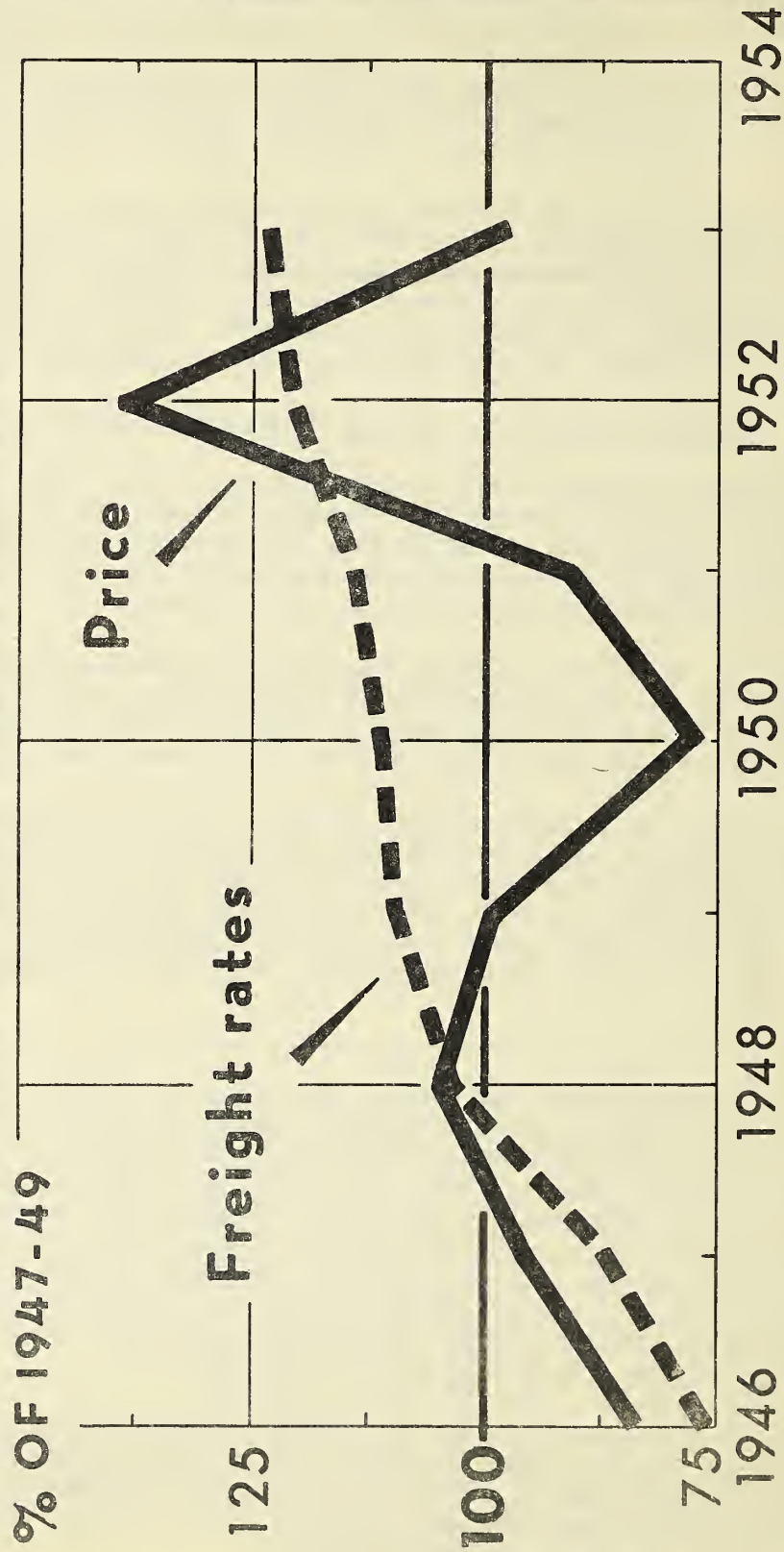
Since 1949 increases in freight rates on potatoes have surpassed increases in wholesale price in each year except 1952. In 1952 the unusually high potato prices were brought about primarily by critically small crops in the 29 late States in 1951, and in the intermediate States in 1952. ^{30/} A quick return to a much lower price level is indicated by the sharp decline in potato prices during the first 6 months of 1953. Although this rate of

^{29/} It should be noted that during World War II freight rates were held down to a relatively low level compared to the price levels of most farm products. But it should also be noted that from 1920-40, the index of farm prices of all farm products (1924-29 = 100), was below the index of freight rates on these products in all but 5 of the years in that period. An index of freight rates and an index of prices to growers of potatoes applied to this period showed the same results as the indexes on all farm products. For further detail on these indexes see Matlock, Clifford C., Trends in Railroad Traffic, Freight Rates, and Prices, Perishable Agricultural Commodities, United States. Bur. Agr. Econ. May 1941.

^{30/} The 1951 crop for the 29 late States of approximately 255 million bushels was 26 percent below the 1950 crop and 21 percent below the average 1940-49 crop. Likewise, the 1952 crop for the 7 intermediate States of approximately 14 million bushels was 31 percent below the 1951 crop and 53 percent below the average 1941-50 crop.

In Major Markets

WHOLESALE PRICES AND FREIGHT RATES OF POTATOES



1953 DATA ARE FOR FIRST 6 MONTHS

U. S. DEPARTMENT OF AGRICULTURE

NEG. 13-53(11) AGRICULTURAL MARKETING SERVICE

Figure 2

decline is not generally expected to continue throughout the rest of the year, no doubt wholesale prices for the calendar-year 1953 will be substantially below those of 1952.

The rigidity in freight rates (as displayed by figure 2) leads to serious difficulties for producers and shippers in a period of depressed prices, especially for such a commodity as potatoes, to which freight rates represent a substantial proportion of the wholesale price.

Incidence of Changes in Freight Rates Upon Producers and Consumers

Changes in freight rates have important economic effects upon producers and consumers. Generally speaking, increases in transportation costs tend to raise prices to consumers and to decrease returns to growers. But as all rates do not rise by the same amount, the various markets and producing areas are affected differently, and a whole new equilibrium or balance of production, consumption, shipments, and price relationships is established. Producers in various supply areas may be affected differently. Typically, those at the greatest distance from the consuming market, for whose products freight rates are an important element in total marketing costs, are more or less disadvantaged while nearby growers may find their competitive position improved. Adjustments to changes in price usually require considerable time in which to work out their full effects, so the incidence of increased transportation costs may differ considerably between the short and the long run.

As indicated earlier in this report, most important urban consuming markets receive potatoes from several producing areas, some at a considerable distance, others nearby. The first effect of a rise in transportation rates is to add an additional charge to those already involved in moving the product from the point of production to the consumer. Assuming that marketing charges other than those for transportation do not change, this widening of the total spread must result in an increase in prices to consumers or a decrease in returns to growers, or perhaps in some of each. Relative elasticities of demand and supply are important. If consumers continue to buy about the same quantities of potatoes in the face of rising prices there will be a tendency to pass most of the increased costs of transportation on to consumers. But if consumers resist higher prices by curtailing consumption the tendency will be to pass the higher transport costs back in the form of lower prices to the producer.

Alternative sources of supply available to buyers and alternative markets to which growers may ship influence the incidence of rate increases. When wholesalers and other middlemen find that they must incur higher costs of transportation to obtain potatoes from distant producing areas they tend to direct demand toward nearby sources of supply, thus raising their prices. However, if these nearby sources are small in relation to the total, it is still necessary to obtain most of the supply from the more distant areas. If the more distant

areas have alternative markets that are closer, or if their transportation costs to the alternative markets have not been raised or have been raised relatively little, they tend to divert shipments to these markets. In this case, the tendency is to pass on to consumers in the initial market a large part of the increased transportation charge, and a relatively small part must be absorbed by the distant producer. Nearby producers, however, will benefit from the higher market prices that will prevail. Effects are the inverse if distant producers do not have attractive alternative market outlets and must continue to ship to the same market or markets, notwithstanding increased transportation charges.

The relative importance of a particular source of supply affects incidence. If a distant area supplies only a small percentage of the total supply of potatoes, a reduction in its contribution or its elimination as a source of market supplies affects prices very little. But another area that is a major supplier affects prices in a market appreciably if it diverts an important part of its shipments to other and more profitable outlets following a rise in costs of movement to its former markets.

The discussion in the preceding paragraph was primarily in terms of what happens in the short run, as in the course of a single season. In the longer run both consumers and producers probably make basic adjustments to changed price relationships. If prices are raised significantly consumers may shift to substitutes for potatoes. More likely, as potatoes are not a completely homogeneous commodity, consumers whose preference has been for potatoes from a particular supply area, say Idaho or Maine, may shift to a cheaper source. On the supply side, nearby producers, whose returns from potato production have been increased, expand output to the extent that additional resources are available or can be diverted profitably from other lines of production. More distant areas that have suffered reduced returns shift to farm enterprises other than potatoes to the extent that these profitable alternatives are available. Thus, an increase in costs of transportation, given a period of time in which to work out its effects, not only brings further changes in consumption, but may result in important shifts in production which, to the extent that production in the more distant areas is reduced, tend to decrease the overall demand for transportation services.

Economists have long recognized that the general nature and direction of the economic effects of increased transportation charges are as outlined above. However, the statistical measurement and verification of these effects have always been difficult. Several factors are involved and some require time for their effects to become apparent. New influences frequently superimpose upon the old before the latter have fully taken effect. Extraneous developments enter in, such as fluctuations in the size of crops or changes in the general price level. These obscure the influence of the forces even while an attempt is being made to measure them. However, developments in the Chicago market between 1946 and 1952 with respect to potatoes from Idaho and Wisconsin were in line with what economists would have expected the influence of higher transportation rates to be during that period.

In table 10 the net advantage that Idaho had in the St. Louis market as compared to Wisconsin in 1946 had largely disappeared by 1953 due partly, at least, because of the increase in the rate differential that reduced prices of Idaho potatoes relative to Wisconsin. This shifting in the freight rate and price differentials was no doubt largely responsible for the increase in unloads of Wisconsin potatoes and the decline in carlot unloads of Idaho potatoes in St. Louis. In 1946, 1 percent of the St. Louis potato supply, as measured by carlot unloads, came from Wisconsin and 23 percent from Idaho. By 1952, 7 percent of the total came from Wisconsin and 19 percent from Idaho. At the same time, total production in these States during 1952 approximated the previous 6-year average.

Table 10.- Freight rate, wholesale price and differential per 100 pounds of potatoes, by local and long distance producers, St. Louis, 1946 and 1953

State of origin	1946		
	Freight rate ^{1/}	Wholesale price	Return above freight rate
	Dollars	Dollars	Dollars
Wisconsin	0.30	2.70	2.40
Idaho	.69	3.53	2.84
Differential	.39	.83	.44
1953 ^{2/}			
Wisconsin	.52	4.83	4.31
Idaho	1.14	5.35	4.21
Differential	.62	.52	.10

^{1/} Average freight rate weighted by number of days in effect.

^{2/} First 6 months of 1953.

An indication of the growing importance of freight rates as a factor affecting returns to growers is given by comparing freight rates as a percentage of wholesale price in 1946 and in the first half of 1953. ^{31/}

Table 11 shows that the ratio of freight rates to wholesale prices at destination has increased from nearly all supply sources.

In only 3 sources of supply of a total of 84 for the 9 cities did freight rates as a percentage of the wholesale price of potatoes show a decline in the first 6 months of 1953 compared to 1946. Of these 3, Idaho in New York City and Utah in Los Angeles declined by only 2 percent, while the decline in freight rates as a percentage of the wholesale price for Nebraska potatoes sold in Cleveland was only 1 percent.

In 1946, freight rates as a percentage of the wholesale price of potatoes for principal suppliers in the nine cities ranged from 5 to 36 percent. For the first 6 months of 1953, this ratio of freight rates to wholesale prices in these cities ranged from 6 to 49 percent. The increasing importance of freight rates when prices are declining is also aptly illustrated by the data contained in table 11.

In the case of California potatoes sold in Boston, the 40-percent increase in freight rates followed by a 15-percent decline in the 1953 price compared to 1946, resulted in the freight rate equaling nearly

^{31/} Beginning with 1928, the Interstate Commerce Commission uses a similar analysis in estimating the relation between gross freight revenues of class 1 railways and the wholesale value at destination of the commodities transported by them.

A comparison of the gross freight revenue as a percentage of wholesale value at destination is given below for products of agriculture and for potatoes in 1946 and 1950 (the latest study).

Commodity group or class	Percentage freight revenue of value at destination	
	1946 Percent	1950 Percent
Products of agriculture	5.58	6.33
Potatoes	17.39	24.80

Although these percentage increases in products of agriculture and potatoes do not take into account changes in length of haul, they do indicate in a general way the importance of changes in freight rates as factors affecting farmers and consumers. On the other hand, changes in length of haul do not materially affect the computations in table 11, as point-to-point comparisons were used.

Table 11.- Freight rate, wholesale price and percentage change per 100 pounds of potatoes, by source of supply, 9 selected markets, 1946 and 1953

Source of supply	Boston								
	Rate			Price			Rate as per-		
	1946 1/	1953 2/	Per-	1946 1/	1953 2/	Per-	centage of price	1946 1/	1953 2/
	: change:			: change:			: change:		
	Dollars	Dollars	Percent	Dollars	Dollars	Percent	Percent	Percent	Percent
Maine	0.38	0.50	32	2.79	2.31	- 17	14	22	
California	1.30	1.82	40	4.36	3.71	- 15	30	49	
Virginia	.42	.76	81	3.05	2.90	- 5	14	26	
Florida	.79	1.31	66	4.99	4.40	- 12	16	30	
North Carolina	.48	.87	81	2.94	2.89	- 2	16	30	
Idaho	1.11	1.63	47	4.13	5.72	38	27	28	
New York City									
New York	.24	.43	79	2.51	3.22	28	10	13	
Maine	.48	.76	58	3.24	2.76	- 15	15	28	
California	1.30	1.82	40	4.22	4.09	- 3	31	44	
Florida	.72	1.22	69	4.91	4.47	- 9	15	27	
Idaho	1.09	1.61	48	3.94	6.08	54	28	26	
Virginia	.32	.59	84	2.79	2.46	- 12	11	24	
North Carolina	.41	.71	73	2.85	2.67	- 6	14	27	
Atlanta									
Maine	.90	1.42	58	4.27	3.53	- 17	21	48	
Florida	.43	.76	77	5.12	4.12	- 20	8	18	
Idaho	1.04	1.56	50	5.44	5.71	5	19	27	
New Jersey	.57	1.00	75	2.92	3.36	15	20	30	
Georgia	.20	.36	80	3.05	2.64	- 13	7	14	
Alabama	.30	.55	83	3.54	2.84	- 20	8	19	
Minn.-N. Dak.	.84	1.42	69	3.36	5.26	57	25	27	
New York	.63	1.10	75	3.77	3.61	- 4	17	30	
California	1.23	1.75	42	5.27	4.10	- 22	23	43	
Tennessee	.30	.55	83	2.92	3.00	3	10	18	
South Carolina	.24	.41	71	3.27	2.32	- 29	7	18	
Wisconsin	.67	1.16	73	3.78	3.50	- 7	18	33	
North Carolina	.49	.88	80	3.00	2.68	- 11	16	33	
New Orleans									
Colorado	.74	1.21	64	3.33	4.47	34	22	27	
Idaho	.88	1.40	59	3.89	5.71	47	23	25	
Nebraska	.74	1.21	64	3.53	4.64	31	21	26	
California	.88	1.40	59	3.96	4.26	8	22	33	
Wisconsin	.66	1.12	70	3.10	4.85	56	21	23	

Continued

Table 11.- Freight rate, wholesale price and percentage change per 100 pounds of potatoes, by source of supply, 9 selected markets, 1946 and 1953-Continued

Source of supply	New Orleans (Contd.)							
	Rate			Price			Rate as per-	
	1946 1/	1953 2/	Per-centage change	1946	1953 2/	Per-centage change	centage of price	
							1946	1953 2/
	Dollars	Dollars	Percent	Dollars	Dollars	Percent	Percent	Percent
New York	0.79	1.31	66	3.42	4.00	17	23	33
Florida	.58	1.03	78	6.32	4.74	- 25	9	22
Minn.-N. Dak.	.82	1.33	62	3.17	3.40	7	26	39
Washington	.94	1.46	55	4.26	5.20	22	22	28
Maine	1.06	1.58	49	2.96	3.75	27	36	42
Cleveland								
Maine	.70	1.18	69	3.36	3.34	- 1	21	35
California	1.14	1.66	46	4.34	3.98	- 8	26	42
New York	.44	.80	82	2.55	2.98	17	17	27
Idaho	.92	1.44	57	3.87	5.82	50	24	25
Florida	.76	1.27	67	5.27	4.59	- 13	14	28
Virginia	.44	.78	77	3.14	3.15	3/	14	25
Alabama	.68	1.17	72	3.58	3.89	9	19	30
North Carolina	.49	.88	80	3.10	3.00	- 3	16	29
South Carolina	.61	1.07	75	3.54	3.30	- 7	17	32
Pennsylvania	.29	.53	83	3.06	3.04	- 1	9	17
Nebraska	.81	1.33	64	3.20	5.62	76	25	24
Arizona	1.14	1.66	46	4.10	4.32	5	28	38
Minn.-N. Dak.	.60	1.02	70	2.93	4.27	46	20	24
Chicago								
Idaho	.75	1.26	68	3.28	5.03	53	23	25
California	.94	1.46	55	3.62	3.23	- 11	26	45
Colorado	.62	1.08	74	2.95	3.96	34	21	27
Minn.-N. Dak.	.41	.74	80	2.22	3.19	44	18	23
Nebraska	.52	.92	77	2.89	4.62	60	18	20
Wisconsin	.21	.37	76	2.12	2.86	35	10	13
Alabama	.63	1.10	75	3.59	3.50	- 3	18	31
Texas	.83	1.38	66	2.80	3.36	20	30	41
Florida	.75	1.25	67	5.53	4.68	- 15	14	27
Oregon	.89	1.42	60	2.92	4.10	40	30	35
Arizona	.94	1.46	55	3.37	3.57	6	28	41
Louisiana	.71	1.22	72	3.87	3.52	- 9	18	35
Michigan	.34	.62	82	2.10	3.55	69	16	17

Continued

Table 11.- Freight rate, wholesale price and percentage change per 100 pounds of potatoes, by source of supply, 9 selected markets, 1946 and 1953-Continued

Source of supply	St. Louis								
	Rate			Price			Rate as per-		
	Per-			Per-			centage of price		
	1946 1/	1953 2/	centage 3/	1946	1953 2/	centage 3/	1946	1953 2/	centage 3/
	Dollars	Dollars	Percent	Dollars	Dollars	Percent	Percent	Percent	Percent
Idaho	0.69	1.14	65	3.53	5.35	52	20	21	
Nebraska	.48	.80	67	3.11	4.07	31	15	20	
California	.88	1.40	59	3.87	3.57	- 8	23	39	
Minn.-N. Dak.	.46	.83	80	2.76	3.37	22	17	25	
Alabama	.48	.86	79	3.57	3.16	- 11	13	27	
Colorado	.56	.94	68	2.97	4.39	48	19	21	
Texas	.66	1.10	67	4.71	4.85	3	14	23	
Arkansas	.46	.82	78	2.96	3.08	4	16	27	
Louisiana	.62	1.03	66	3.72	3.58	- 4	17	29	
Florida	.71	1.22	72	5.63	4.80	- 15	13	25	
Wisconsin	.30	.52	73	2.70	4.83	79	11	11	
San Francisco									
California	.20	.33	65	3.48	3.75	8	6	9	
Oregon	.36	.59	64	3.40	4.75	40	11	12	
Idaho	.50	.86	72	3.69	5.25	42	14	16	
Nevada	.52	.89	71	3.26	4.50	38	16	20	
Florida	1.33	1.85	39	7.35	6.09	- 17	18	30	
Los Angeles									
California	.15	.25	67	3.26	3.92	20	5	6	
Idaho	.48	.82	71	3.33	4.82	45	14	17	
Utah	.46	.52	13	3.20	4.32	35	14	12	
Oregon	.43	.70	63	3.28	4.47	36	13	16	
Florida	1.33	1.85	39	6.89	5.77	- 16	19	32	
Nevada	.40	.61	52	3.75	4.58	22	11	13	

1/ Annual average freight rate weighted by number of days in effect.

2/ First 6 months of 1953.

3/ Less than 0.5 percent.

half the wholesale price. In both Chicago and Atlanta, the ratio of freight rates to wholesale prices for California potatoes is only slightly less than that in Boston. A similar pattern of sharply rising ratios of freight rates to wholesale prices is indicated for other origins in the same or different markets.

In the first 6 months of 1953, potatoes from almost half of the sources of supply (35 of a total of 84) have sold at wholesale prices below those of 1946.

Even for potatoes from such States as Idaho, Nebraska, Colorado, Minnesota, and North Dakota, in which wholesale prices of potatoes in the nine markets in the first 6 months of 1953 were still well above the 1946 wholesale price level, the increase in freight rates has exceeded the increase in wholesale prices. As a result, the ratio of freight rates to wholesale price has continued to expand.

APPENDIX

Table 12.- Boston: Unloads of potatoes, by source of supply, and by type of carrier, 1946-52

Source of supply : and type of carrier:	1946	1947 1/2	1948 1/2	1949	1950	1951	1952
	Cars	Cars	Cars	Cars	Cars	Cars	Cars
Maine							
Rail	3,685	3,203	2,561	1,953	2,531	3,094	3,092
Truck	132	318	418	1,053	514	536	1,054
Total	3,817	3,521	2,979	3,006	3,045	3,630	4,146
New York							
Rail	1,033	691	228	41	60	19	23
Truck	16	98	370	364	701	819	858
Total	1,049	789	598	405	761	838	881
California							
Rail	523	461	650	715	733	441	445
Truck	1	---	---	---	---	---	---
Total	524	461	650	715	733	441	445
Virginia							
Rail	323	357	159	199	159	121	45
Truck	4	5	103	307	170	155	204
Total	327	362	262	506	329	276	249
Florida							
Rail	233	66	79	165	160	237	221
Truck	1	1	---	1	9	3	16
Total	234	67	79	166	169	240	237
North Carolina							
Rail	160	221	99	112	31	65	34
Truck	5	---	18	62	42	66	29
Total	165	221	117	174	73	131	63
South Carolina							
Rail	118	73	24	12	10	66	53
Truck	---	1	1	2	4	8	12
Total	118	74	25	14	14	74	65
Idaho							
Rail	97	17	26	42	63	116	223
Truck	---	---	3	---	1	---	---
Total	97	17	29	42	64	116	223
Washington							
Rail	93	99	31	73	62	78	74
Truck	---	---	---	---	---	---	---
Total	93	99	31	73	62	78	74

Continued

Table 12.- Boston: Unloads of potatoes, by source of supply, and by type of carrier, 1946-52 - Continued

Source of supply and type of carrier:	1946	1947 ^{1/}	1948 ^{1/}	1949	1950	1951	1952
	Cars	Cars	Cars	Cars	Cars	Cars	Cars
Massachusetts							
Rail	50	83	47	40	121	32	---
Truck	---	---	11	62	71	7	---
Total	50	83	58	102	192	39	---
Rhode Island							
Rail	1	1	1	---	---	---	---
Truck	7	---	394	248	130	69	158
Total	8	1	395	248	130	69	158
Nearby truck							
Rail	---	---	---	---	---	---	---
Truck	411	414	186	153	522	306	185
Total	411	414	186	153	522	306	185
Canada							
Rail	404	1,056	1,046	362	392	532	182
Truck	---	---	41	41	74	113	58
Total	404	1,056	1,087	403	466	645	240
Other							
Rail	257	113	83	60	56	28	66
Truck	32	66	118	45	78	96	39
Total	289	179	201	105	134	124	105
Total							
Rail	6,977	6,441	5,034	3,774	4,378	4,829	4,458
Truck	609	903	1,663	2,338	2,136	2,178	2,613
Grand total	7,586	7,344	6,697	6,112	6,694	7,007	7,071

^{1/} Boat receipts included in rail.

Table 13.- New York: Unloads of potatoes, by source of supply, and by type of carrier, 1946-52

Source of supply : and type of carrier:	1946	1947 1/2	1948	1949 1/2	1950 1/2	1951 1/2	1952 1/2
	Cars	Cars	Cars	Cars	Cars	Cars	Cars
New York							
Long Island							
Rail	815	633	32	3	9	38	12
Truck	8,103	9,050	10,367	7,874	8,619	7,516	6,870
Total	8,918	9,683	10,399	8,877	8,628	7,554	6,882
Other							
Rail	17	37	26	42	4	1	4
Truck	13	6	63	387	92	271	26
Total	30	43	89	429	96	272	30
Total							
Rail	832	670	58	45	13	39	16
Truck	8,116	9,056	10,430	8,261	8,711	7,787	6,896
Total New York	8,948	9,726	10,488	8,306	8,724	7,826	6,912
Maine							
Rail	5,036	4,604	5,376	6,343	8,241	5,693	6,825
Truck	21	8	4	104	134	57	57
Total	5,057	4,612	5,380	6,447	8,375	5,750	6,882
California							
Rail	1,637	1,715	1,676	1,739	1,681	1,063	1,111
Truck	---	---	---	---	---	---	1
Total	1,637	1,715	1,676	1,739	1,681	1,063	1,112
Florida							
Rail	1,549	744	827	676	540	525	487
Truck	7	3	11	183	170	217	284
Total	1,556	747	838	859	710	742	771
Idaho							
Rail	1,305	1,160	1,088	1,609	1,691	1,927	1,591
Truck	---	---	---	3	4	---	---
Total	1,305	1,160	1,088	1,612	1,695	1,927	1,591
Virginia							
Rail	335	267	37	12	4	1	12
Truck	826	669	1,290	1,319	1,118	1,120	761
Total	1,161	936	1,327	1,331	1,122	1,121	773

Continued

Table 13.- New York: Unloads of potatoes, by source of supply, and by type of carrier, 1946-52 - Continued

Source of supply : and type of carrier:	1946	1947 ^{1/}	1948	1949 ^{1/}	1950 ^{1/}	1951 ^{1/}	1952 ^{1/}
	Cars	Cars	Cars	Cars	Cars	Cars	Cars
North Carolina							
Rail	322	354	135	36	22	48	35
Truck	418	499	414	591	209	394	370
Total	740	853	549	627	231	442	405
South Carolina							
Rail	504	313	85	81	87	184	55
Truck	41	26	31	142	92	95	39
Total	545	339	116	223	179	279	94
Washington							
Rail	223	278	126	334	336	266	332
Truck	---	---	---	---	---	---	3
Total	223	278	126	334	336	266	335
New Jersey							
Rail	17	177	41	6	1	---	---
Truck	198	227	116	157	36	113	46
Total	215	404	157	163	37	113	46
Oregon							
Rail	71	83	122	212	130	147	98
Truck	---	---	---	---	---	---	---
Total	71	83	122	212	130	147	98
Canada							
Rail	52	817	771	685	212	499	122
Truck	---	---	---	33	49	16	---
Total	52	817	771	718	261	515	122
Other							
Rail	427	458	247	209	218	238	856
Truck	65	278	599	628	506	413	223
Total	492	736	846	837	724	651	1,079
Total							
Rail	12,310	11,640	10,589	11,987	13,176	10,630	11,540
Truck	9,692	10,766	12,895	11,421	11,029	10,212	8,680
Grand total	22,002	22,406	23,484	23,408	24,205	20,842	20,220

^{1/} Boat receipts included in rail.

Table 14.- Atlanta: Unloads of potatoes, by source of supply, and by type of carrier, 1946-52

Source of supply : and type of carrier:	1946 :	1947 :	1948 :	1949 :	1950 :	1951 :	1952
	Cars	Cars	Cars	Cars	Cars	Cars	Cars
Maine							
Rail	337	236	254	140	63	75	212
Truck	2	1	5	10	42	52	120
Total	339	237	259	150	105	127	332
Florida							
Rail	128	73	59	48	30	10	23
Truck	151	134	178	317	416	400	555
Total	279	207	237	365	446	410	578
Idaho							
Rail	252	267	271	416	454	515	503
Truck	7	11	1	2	---	2	8
Total	259	278	272	418	454	517	511
New Jersey							
Rail	202	185	141	7	6	42	---
Truck	34	180	378	469	314	536	400
Total	236	365	419	476	320	578	400
Georgia							
Rail	35	23	10	10	7	6	2
Truck	177	172	100	143	106	64	54
Total	212	195	110	153	113	70	56
Alabama							
Rail	40	27	21	7	3	3	11
Truck	153	128	325	244	321	229	180
Total	193	155	346	251	324	232	191
North Dakota							
Rail	136	107	198	129	43	23	30
Truck	3	4	7	1	2	1	18
Total	139	111	205	130	45	24	48
New York							
Rail	102	169	37	---	95	74	3
Truck	---	2	73	57	314	480	325
Total	102	171	110	57	409	554	328

Continued

Table 14.- Atlanta: Unloads of potatoes, by source of supply, and by type of carrier, 1946-52 - Continued

Source of supply and type of carrier:	1946	1947	1948	1949	1950	1951	1952
	Cars	Cars	Cars	Cars	Cars	Cars	Cars
California							
Rail	100	115	125	161	180	122	155
Truck	---	---	---	---	6	---	1
Total	100	115	125	161	186	122	156
Tennessee							
Rail	25	36	37	1	---	---	---
Truck	58	61	118	105	52	30	49
Total	83	97	155	106	52	30	49
South Carolina							
Rail	43	27	13	3	1	1	10
Truck	30	27	31	100	113	79	139
Total	73	54	44	103	114	80	149
Wisconsin							
Rail	68	27	51	136	16	42	85
Truck	2	4	4	17	1	19	35
Total	70	31	55	153	17	61	120
Minnesota							
Rail	68	79	49	66	32	21	68
Truck	1	2	2	2	---	1	1
Total	69	81	51	68	32	22	69
North Carolina							
Rail	33	56	30	7	1	14	---
Truck	24	113	116	171	94	117	148
Total	57	169	146	178	95	131	148
Colorado							
Rail	48	25	10	23	22	8	111
Truck	---	---	1	1	1	---	11
Total	48	25	11	24	23	8	122
Washington							
Rail	45	39	24	42	44	74	49
Truck	---	---	---	---	---	---	1
Total	45	39	24	42	44	74	50

Continued

Table 14.- Atlanta: Unloads of potatoes, by source of supply, and by type of carrier, 1946-52 - Continued

Source of supply : and type of carrier:	1946 :	1947 :	1948 :	1949 :	1950 :	1951 :	1952 :
	Cars	Cars	Cars	Cars	Cars	Cars	Cars
Pennsylvania							
Rail	1	23	15	8	5	20	2
Truck	---	11	112	132	233	237	143
Total	1	34	127	140	238	257	145
Canada							
Rail	---	66	35	85	82	17	5
Truck	---	---	37	86	168	70	10
Total	---	66	72	171	250	87	15
Other							
Rail	124	149	140	64	63	73	62
Truck	32	63	132	236	207	269	230
Total	156	212	272	300	270	342	292
Total							
Rail	1,787	1,729	1,420	1,353	1,147	1,140	1,331
Truck	674	913	1,620	2,093	2,390	2,586	2,428
Grand total	2,461	2,642	3,040	3,446	3,537	3,726	3,759

Table 15.- New Orleans: Unloads of potatoes, by source of supply, and by type of carrier, 1946-52

Source of supply and type of carrier:	1946 1/2	1947 1/2	1948	1949 1/2	1950 1/2	1951	1952
	Cars	Cars	Cars	Cars	Cars	Cars	Cars
Colorado							
Rail	317	306	112	140	92	40	101
Truck	10	17	33	92	117	136	96
Total	327	323	145	232	209	176	197
Louisiana							
Rail	103	---	---	---	---	---	---
Truck	219	120	88	---	---	---	---
Total	322	120	88	---	---	---	---
Idaho							
Rail	311	290	314	427	487	574	501
Truck	1	---	---	1	6	2	1
Total	312	290	314	428	493	576	502
Nebraska							
Rail	111	139	161	148	189	184	119
Truck	1	2	---	29	38	67	60
Total	112	141	161	177	227	251	179
California							
Rail	107	252	265	414	305	323	388
Truck	---	---	---	3	---	---	8
Total	107	252	265	417	305	323	396
Alabama							
Rail	79	16	9	---	---	---	1
Truck	5	38	38	42	62	83	47
Total	84	54	47	42	62	83	48
Wisconsin							
Rail	60	80	137	118	41	68	38
Truck	1	---	5	8	14	32	9
Total	61	80	142	126	55	100	47
New York							
Rail	46	132	52	20	111	118	27
Truck	---	---	2	11	40	29	21
Total	46	132	54	31	151	147	48

Continued

Table 15.- New Orleans: Unloads of potatoes, by source of supply, and by type of carrier, 1946-52 - Continued

Source of supply and type of carrier:	1946 <u>1/</u>	1947 <u>1/</u>	1948	1949 <u>1/</u>	1950 <u>1/</u>	1951	1952
	Cars	Cars	Cars	Cars	Cars	Cars	Cars
Florida							
Rail	27	6	29	19	7	21	31
Truck	3	5	8	25	17	25	65
Total	30	11	37	44	24	46	96
Texas							
Rail	29	74	80	39	25	19	1
Truck	1	2	6	8	22	41	51
Total	30	76	86	47	47	60	52
North Dakota							
Rail	30	46	99	43	28	17	29
Truck	---	---	1	6	---	---	---
Total	30	46	100	49	28	17	29
Minnesota							
Rail	25	83	199	82	42	44	44
Truck	---	---	10	7	11	17	7
Total	25	83	209	89	53	61	51
Washington							
Rail	18	75	43	46	63	113	124
Truck	---	---	---	---	---	1	---
Total	18	75	43	46	63	114	124
Maine							
Rail	17	11	31	3	6	48	64
Truck	---	---	1	---	3	5	8
Total	17	11	32	3	9	53	72
Other							
Rail	141	83	97	215	88	69	41
Truck	3	10	18	40	88	74	42
Total	144	93	115	255	176	143	83
Total							
Rail	1,421	1,593	1,628	1,714	1,484	1,638	1,509
Truck	244	194	210	272	418	512	415
Grand total	1,665	1,787	1,838	1,986	1,902	2,150	1,924

1/ Boat receipts included in rail.

Table 16.- Cleveland: Unloads of potatoes, by source of supply, and by type of carrier, 1946-52

Source of supply : and type of carrier:	1946 :	1947 :	1948 :	1949 :	1950 :	1951 :	1952
	Cars	Cars	Cars	Cars	Cars	Cars	Cars
Maine							
Rail	1,120	1,143	1,044	725	752	742	1,079
Truck	---	---	---	9	31	4	2
Total	1,120	1,143	1,044	734	783	746	1,081
California							
Rail	727	824	947	1,039	912	730	803
Truck	---	---	---	---	---	---	---
Total	727	824	947	1,039	912	730	803
New York							
Rail	304	278	66	4	14	9	12
Truck	116	149	260	316	351	347	398
Total	420	427	326	320	365	356	410
Idaho							
Rail	410	396	373	442	523	665	683
Truck	---	---	---	---	---	---	1
Total	410	396	373	442	523	665	684
Florida							
Rail	231	85	184	234	204	242	216
Truck	---	---	---	3	15	5	8
Total	231	85	184	237	219	247	224
New Jersey							
Rail	40	17	---	---	6	---	---
Truck	153	73	32	49	34	68	28
Total	193	90	32	49	40	68	28
Ohio							
Rail	---	2	5	7	7	---	---
Truck	190	140	283	420	298	244	179
Total	190	142	288	427	305	244	179
Washington							
Rail	183	280	103	207	148	150	118
Truck	---	---	---	---	---	---	---
Total	183	280	103	207	148	150	118

Continued

Table 16.- Cleveland: Unloads of potatoes, by source of supply, and by type of carrier, 1946-52 - Continued

Source of supply : and type of carrier:	1946 :	1947 :	1948 :	1949 :	1950 :	1951 :	1952 :
	Cars	Cars	Cars	Cars	Cars	Cars	Cars
Virginia :							
Rail :	116	75	40	52	75	53	18
Truck :	---	1	7	14	23	12	11
Total :	116	76	47	66	98	65	29
Alabama :							
Rail :	114	74	64	36	58	87	58
Truck :	---	---	1	---	---	---	1
Total :	114	74	65	36	58	87	59
North Carolina :							
Rail :	79	140	62	51	20	33	17
Truck :	---	---	---	23	5	4	23
Total :	79	140	62	74	25	37	40
Texas :							
Rail :	76	67	52	29	45	38	29
Truck :	---	---	---	---	---	---	---
Total :	76	67	52	29	45	38	29
South Carolina :							
Rail :	60	26	18	16	29	47	47
Truck :	---	---	---	1	2	10	7
Total :	60	26	18	17	31	57	54
Pennsylvania :							
Rail :	4	---	2	---	---	---	---
Truck :	37	50	48	65	56	81	111
Total :	41	50	50	65	56	81	111
Nebraska :							
Rail :	40	39	35	52	56	130	84
Truck :	---	---	---	---	---	---	---
Total :	40	39	35	52	56	130	84
Oregon :							
Rail :	30	35	27	31	43	45	89
Truck :	---	---	---	---	---	---	---
Total :	30	35	27	31	43	45	89

Continued

Table 16.- Cleveland: Unloads of potatoes, by source of supply, and by type of carrier, 1946-52 - Continued

Source of supply : and type of carrier:	1946 :	1947 :	1948 :	1949 :	1950 :	1951 :	1952
	<u>Cars</u>	<u>Cars</u>	<u>Cars</u>	<u>Cars</u>	<u>Cars</u>	<u>Cars</u>	<u>Cars</u>
Arizona	:	:	:	:	:	:	:
Rail	: 30	: 43	: 50	: 25	: 54	: 41	: 50
Truck	: ---	: ---	: ---	: ---	: ---	: ---	: ---
Total	: 30	: 43	: 50	: 25	: 54	: 41	: 50
Minnesota	:	:	:	:	:	:	:
Rail	: 24	: 11	: 3	: 26	: 19	: 20	: 31
Truck	: ---	: ---	: ---	: ---	: ---	: ---	: ---
Total	: 24	: 11	: 3	: 26	: 19	: 20	: 31
North Dakota	:	:	:	:	:	:	:
Rail	: 19	: 21	: 20	: 54	: 46	: 54	: 55
Truck	: ---	: ---	: ---	: ---	: ---	: ---	: ---
Total	: 19	: 21	: 20	: 54	: 46	: 54	: 55
Other	:	:	:	:	:	:	:
Rail	: 270	: 131	: 66	: 63	: 71	: 77	: 107
Truck	: 21	: 14	: 48	: 132	: 62	: 60	: 47
Total	: 291	: 145	: 114	: 195	: 133	: 137	: 154
Total	:	:	:	:	:	:	:
Rail	: 3,877	: 3,687	: 3,161	: 3,093	: 3,082	: 3,163	: 3,496
Truck	: 517	: 427	: 679	: 1,032	: 877	: 835	: 816
Grand total	: 4,394	: 4,114	: 3,840	: 4,125	: 3,959	: 3,998	: 4,312

Table 17.- Chicago: Unloads of potatoes, by source of supply, and by type of carrier, 1946-52

Source of supply : and type of carrier:	1946 :	1947 :	1948 :	1949 :	1950 :	1951 :	1952
	Cars	Cars	Cars	Cars	Cars	Cars	Cars
Idaho	:	:	:	:	:	:	:
Rail	: 4,182	3,446	3,733	4,050	3,602	3,799	3,465
Truck	: ---	---	---	---	---	4	---
Total	: 4,182	3,446	3,733	4,050	3,602	3,803	3,465
California	:	:	:	:	:	:	:
Rail	: 2,032	2,223	3,028	2,757	2,645	2,393	1,907
Truck	: ---	---	---	---	---	---	2
Total	: 2,032	2,223	3,028	2,757	2,645	2,393	1,909
Colorado	:	:	:	:	:	:	:
Rail	: 1,963	1,975	1,907	1,932	1,481	820	994
Truck	: 1	1	1	2	---	1	4
Total	: 1,964	1,976	1,908	1,934	1,481	821	998
North Dakota	:	:	:	:	:	:	:
Rail	: 1,792	1,546	1,984	1,743	1,834	2,255	2,494
Truck	: ---	---	---	---	2	15	2
Total	: 1,792	1,546	1,984	1,743	1,836	2,270	2,496
Nebraska	:	:	:	:	:	:	:
Rail	: 939	893	572	427	461	272	145
Truck	: ---	---	---	---	1	1	1
Total	: 939	893	572	427	462	273	146
Minnesota	:	:	:	:	:	:	:
Rail	: 866	1,142	1,380	1,013	1,179	1,714	1,220
Truck	: ---	---	---	---	---	11	1
Total	: 866	1,142	1,380	1,013	1,179	1,725	1,221
Wisconsin	:	:	:	:	:	:	:
Rail	: 824	919	1,046	1,317	1,517	1,569	1,038
Truck	: 7	1	13	7	26	456	231
Total	: 831	920	1,059	1,324	1,543	2,025	1,269
Washington	:	:	:	:	:	:	:
Rail	: 709	1,485	517	1,095	1,060	917	840
Truck	: ---	---	---	---	---	---	---
Total	: 709	1,485	517	1,095	1,060	917	840

Continued

Table 17.- Chicago: Unloads of potatoes, by source of supply, and by type of carrier, 1946-52 - Continued

Source of supply : and type of carrier:	1946 :	1947 :	1948 :	1949 :	1950 :	1951 :	1952
	Cars	Cars	Cars	Cars	Cars	Cars	Cars
Alabama							
Rail	451	451	412	438	407	505	386
Truck	2	---	3	43	66	31	46
Total	453	451	415	481	473	536	432
Texas							
Rail	442	403	365	288	331	329	267
Truck	---	---	---	1	1	---	---
Total	442	403	365	289	332	329	267
Florida							
Rail	293	510	274	419	382	348	458
Truck	---	---	3	10	14	19	18
Total	293	510	277	429	396	367	476
Oregon							
Rail	253	383	374	375	261	345	295
Truck	---	---	---	---	---	---	---
Total	253	383	374	375	261	345	295
Arizona							
Rail	193	321	406	296	299	162	248
Truck	---	---	---	---	---	---	---
Total	193	321	406	296	299	162	248
Louisiana							
Rail	166	24	22	13	59	11	5
Truck	---	---	1	---	1	---	4
Total	166	24	23	13	60	11	9
Michigan							
Rail	83	173	92	138	179	234	45
Truck	19	27	44	67	52	180	100
Total	102	200	136	205	231	414	145
Indiana							
Rail	2	1	---	---	7	5	---
Truck	39	12	9	13	30	81	29
Total	41	13	9	13	37	86	29

Continued

Table 17.- Chicago: Unloads of potatoes, by source of supply, and by type of carrier, 1946-52 - Continued

Source of supply : and type of carrier:	1946 :	1947 :	1948 :	1949 :	1950 :	1951 :	1952
	Cars	Cars	Cars	Cars	Cars	Cars	Cars
North Carolina							
Rail	34	48	36	75	17	44	23
Truck	---	---	---	---	3	---	---
Total	34	48	36	75	20	44	23
South Carolina							
Rail	31	32	---	6	41	59	9
Truck	---	---	---	2	---	---	1
Total	31	32	---	8	41	59	10
Other							
Rail	880	1,092	1,110	499	771	355	312
Truck	---	---	---	1	14	14	---
Total	880	1,092	1,110	500	785	369	312
Total							
Rail	16,135	17,067	17,258	16,881	16,533	16,136	14,151
Truck	68	41	74	146	210	813	439
Grand total	16,203	17,108	17,332	17,027	16,743	16,949	14,590

Table 18.- St. Louis: Unloads of potatoes, by source of supply, and by type of carrier, 1946-52

Source of supply : and type of carrier:	1946 :	1947 :	1948 :	1949 :	1950 :	1951 :	1952
	<u>Cars</u>	<u>Cars</u>	<u>Cars</u>	<u>Cars</u>	<u>Cars</u>	<u>Cars</u>	<u>Cars</u>
Idaho							
Rail	1,059	1,183	911	1,289	1,143	1,303	1,098
Truck	---	---	1	---	---	---	---
Total	1,059	1,183	912	1,289	1,143	1,303	1,098
Nebraska							
Rail	838	1,044	1,077	1,015	973	1,115	881
Truck	---	1	---	4	33	46	14
Total	838	1,045	1,077	1,019	1,006	1,161	895
California							
Rail	448	658	628	832	692	442	513
Truck	---	---	---	1	1	---	---
Total	448	658	628	833	693	442	513
North Dakota							
Rail	349	410	423	373	279	189	457
Truck	---	---	---	1	3	1	3
Total	349	410	423	374	282	190	460
Alabama							
Rail	280	309	255	222	301	405	244
Truck	33	17	25	67	65	73	75
Total	313	326	280	289	366	478	319
Colorado							
Rail	263	375	205	410	413	344	421
Truck	---	---	---	6	---	---	2
Total	263	375	205	416	413	344	423
Minnesota							
Rail	250	348	554	615	570	400	569
Truck	---	5	1	5	2	2	---
Total	250	353	555	620	572	402	569
Oregon							
Rail	125	111	109	113	92	110	126
Truck	---	---	---	---	---	---	---
Total	125	111	109	113	92	110	126

Continued

Table 18.- St. Louis: Unloads of potatoes, by source of supply, and by type of carrier, 1946-52 - Continued

Source of supply and type of carrier:	1946	1947	1948	1949	1950	1951	1952
	Cars	Cars	Cars	Cars	Cars	Cars	Cars
Texas							
Rail	114	88	116	58	108	159	164
Truck	4	---	2	2	6	2	---
Total	118	88	118	60	114	161	164
Washington							
Rail	104	141	57	194	205	138	252
Truck	---	---	---	---	---	---	---
Total	104	141	57	194	205	138	252
Arkansas							
Rail	25	35	47	24	15	---	2
Truck	67	97	79	82	75	56	44
Total	92	132	126	106	90	56	46
Louisiana							
Rail	61	33	9	8	55	26	4
Truck	28	11	9	3	1	---	1
Total	89	44	18	11	56	26	5
Florida							
Rail	44	31	45	62	34	79	151
Truck	1	2	1	4	3	3	6
Total	45	33	46	66	37	82	157
Wisconsin							
Rail	41	118	164	219	374	496	368
Truck	---	13	2	---	6	20	10
Total	41	131	166	219	380	516	378
Missouri							
Rail	11	27	47	18	84	2	14
Truck	1	---	4	17	10	9	3
Total	12	27	51	35	94	11	17
Maine							
Rail	12	14	177	18	32	18	57
Truck	---	---	---	1	---	---	---
Total	12	14	177	19	32	18	57

Continued

Table 18.- St. Louis: Unloads of potatoes, by source of supply, and by type of carrier, 1946-52 - Continued

Source of supply : and type of carrier:	1946 :	1947 :	1948 :	1949 :	1950 :	1951 :	1952 :
	Cars	Cars	Cars	Cars	Cars	Cars	Cars
Nearby truck							
Rail	---	---	---	---	---	---	---
Truck	84	76	39	98	80	60	10
Total	84	76	39	98	80	60	10
Other							
Rail	257	247	331	272	414	443	275
Truck	9	5	94	39	129	96	17
Total	266	252	425	311	543	539	292
Total							
Rail	4,281	5,172	5,155	5,742	5,784	5,669	5,596
Truck	227	227	257	330	414	368	185
Grand total	4,508	5,399	5,412	6,072	6,198	6,037	5,781

Table 19.- San Francisco: Unloads of potatoes, by source of supply, and by type of carrier, 1946-52

Source of supply and type of carrier:	1946 ^{1/}	1947	1948	1949	1950	1951	1952
	Cars	Cars	Cars	Cars	Cars	Cars	Cars
California							
Rail	1,064	1,094	1,042	1,016	765	912	598
Truck	819	883	1,023	798	779	745	826
Total	1,883	1,977	2,065	1,814	1,544	1,657	1,424
Oregon							
Rail	1,165	892	749	817	846	916	842
Truck	67	59	35	93	122	208	131
Total	1,232	951	784	910	968	1,124	973
Idaho							
Rail	197	163	259	156	65	54	67
Truck	15	12	8	8	19	48	59
Total	212	175	267	164	84	102	126
Nevada							
Rail	75	77	39	22	58	46	16
Truck	4	---	1	---	2	7	---
Total	79	77	40	22	60	53	16
Florida							
Rail	61	27	24	23	16	7	13
Truck	---	---	---	---	1	---	---
Total	61	27	24	23	17	7	13
Washington							
Rail	16	112	23	22	26	8	3
Truck	---	---	2	66	91	83	80
Total	16	112	25	88	117	91	83
Other							
Rail	74	42	84	18	5	9	73
Truck	3	---	2	11	12	3	6
Total	77	42	86	29	17	12	79
Total							
Rail	2,652	2,407	2,220	2,074	1,781	1,952	1,612
Truck	908	954	1,071	976	1,026	1,094	1,102
Grand total	3,560	3,361	3,291	3,050	2,807	3,046	2,714

^{1/} Boat receipts included in rail.

Table 20.- Los Angeles: Unloads of potatoes, by source of supply, and by type of carrier, 1946-52

Source of supply : and type of carrier:	1946 :	1947 :	1948 :	1949 :	1950 :	1951 :	1952 :
	Cars	Cars	Cars	Cars	Cars	Cars	Cars
California							
Rail	: 1,402	: 1,196	: 1,153	: 962	: 1,099	: 1,312	: 1,452
Truck	: 6,793	: 7,301	: 7,964	: 8,934	: 8,577	: 8,767	: 7,388
Total	: 8,195	: 8,497	: 9,117	: 9,896	: 9,676	: 10,079	: 8,840
Idaho							
Rail	: 2,528	: 1,958	: 2,336	: 2,657	: 1,477	: 2,332	: 2,899
Truck	: 25	: 126	: 104	: 429	: 1,148	: 730	: 662
Total	: 2,553	: 2,084	: 2,440	: 3,086	: 2,625	: 3,062	: 3,561
Utah							
Rail	: 653	: 549	: 359	: 483	: 342	: 282	: 95
Truck	: 41	: 62	: 119	: 163	: 335	: 534	: 207
Total	: 694	: 611	: 478	: 646	: 677	: 816	: 302
Oregon							
Rail	: 353	: 294	: 235	: 392	: 817	: 702	: 875
Truck	: ---	: 6	: ---	: 26	: 73	: 98	: 40
Total	: 353	: 300	: 235	: 418	: 890	: 800	: 915
Other							
Rail	: 192	: 114	: 189	: 77	: 93	: 53	: 192
Truck	: 15	: 18	: 10	: 35	: 25	: 84	: 177
Total	: 207	: 132	: 199	: 112	: 118	: 137	: 369
Total							
Rail	: 5,128	: 4,111	: 4,272	: 4,571	: 3,829	: 4,681	: 5,513
Truck	: 6,874	: 7,513	: 8,197	: 9,587	: 10,158	: 10,213	: 8,474
Grand total	: 12,002	: 11,624	: 12,469	: 14,158	: 13,987	: 14,894	: 13,987

Table 21.- Index numbers of unloads of potatoes, 9 selected markets,
1946-52 1/

Market	(1946 = 100)						
	1946	1947	1948	1949	1950	1951	1952
Boston	100	97	88	81	88	92	93
New York	100	102	107	106	110	95	92
Atlanta	100	107	124	140	144	151	153
New Orleans	100	107	110	119	114	129	116
Cleveland	100	94	87	94	90	91	98
Chicago	100	106	107	105	103	105	90
St. Louis	100	120	120	135	137	134	128
San Francisco	100	94	92	86	79	86	76
Los Angeles	100	97	104	118	117	124	117

1/ Includes rail, boat, and truck unloads.

Basic data were derived from reports issued by the Production and Marketing Administration.

Table 22.- Average wholesale price per 100 pounds of potatoes, by source of supply, 9 selected markets, 1946-53

Source of supply	Boston							
	1946	1947	1948	1949	1950	1951	1952	1953 1/
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
Maine	2.79	2.91	3.44	3.28	2.29	2.73	4.48	2.31
New York	2.54	2.96	3.15	3.24	1.78	2.45	5.24	---
California	4.36	4.85	5.08	4.84	4.19	4.73	7.40	3.71
Virginia	3.05	3.70	3.90	3.62	2.67	1.99	6.05	2.90
Florida	4.99	4.66	5.67	5.76	4.56	4.66	6.05	4.40
North Carolina	2.94	3.96	4.11	3.98	2.97	3.51	5.75	2.89
Idaho	4.13	4.56	4.31	4.92	3.91	5.22	5.99	5.72
Washington	4.15	4.42	4.92	4.55	4.50	4.56	7.04	---
Massachusetts	----	2.90	3.40	2.21	1.47	3.20	4.10	---
	New York City							
New York (L.I.)	2.51	2.91	3.05	2.97	1.68	2.58	4.79	3.22
Maine	3.24	3.13	3.81	3.70	2.79	2.72	4.73	2.76
California	4.22	4.85	5.33	4.96	4.19	4.85	7.08	4.09
Florida	4.91	4.56	6.47	5.69	4.53	4.37	6.16	4.47
Idaho	3.94	4.59	5.24	5.08	4.45	4.66	6.31	6.08
Virginia	2.79	3.45	3.42	3.12	2.40	2.35	6.30	2.46
North Carolina	2.85	3.90	3.76	3.39	3.66	3.33	6.03	2.67
South Carolina	2.98	4.58	4.36	5.13	---	4.09	5.12	3.28
Washington	4.26	4.71	4.60	4.74	4.31	4.47	7.00	---
New Jersey	2.30	2.70	2.85	2.77	1.67	1.62	---	---
	Atlanta							
Maine	4.27	3.53	3.77	4.36	3.41	4.45	5.24	3.53
Florida	5.12	5.21	5.56	5.46	4.46	5.11	5.68	4.12
Idaho	5.44	4.35	3.93	4.93	4.23	4.61	6.23	5.71
New Jersey	2.92	3.31	3.52	3.23	2.46	3.31	5.56	3.36
Georgia	3.05	3.49	3.56	3.78	2.76	3.02	5.89	2.64
Alabama	3.54	3.86	4.05	3.98	3.16	3.21	5.54	2.84
Minn.-N. Dak.	3.36	3.47	3.83	4.11	3.27	4.75	5.71	5.26
New York	3.77	3.37	2.92	3.85	2.51	3.26	5.16	3.61
California	5.27	4.82	4.39	4.84	4.13	4.92	7.31	4.10
Tennessee	2.92	3.29	3.87	3.06	2.92	3.77	6.74	3.00
South Carolina	3.27	3.71	4.01	4.52	3.22	3.43	5.78	2.32
Wisconsin	3.78	3.66	3.11	3.30	---	3.86	5.17	3.50
North Carolina	3.00	3.51	3.68	3.41	2.59	2.89	5.91	2.68
Colorado	---	3.65	3.66	---	---	---	5.74	---
Washington	4.81	4.79	4.17	4.45	4.37	4.67	6.69	---
Pennsylvania	---	3.76	3.49	3.21	2.70	3.51	5.05	4.45

Continued

Table 22.- Average wholesale price per 100 pounds of potatoes, by source of supply, 9 selected markets, 1946-53 - Continued

Source of supply	New Orleans							
	1946	1947	1948	1949	1950	1951	1952	1953 1/
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
Colorado	3.33	3.48	4.23	3.86	3.35	3.71	5.61	4.47
Louisiana	2.62	3.03	3.93	---	---	---	---	---
Idaho	3.89	4.39	5.00	4.86	4.06	4.42	6.16	5.71
Nebraska	3.53	4.02	4.30	4.50	3.56	4.19	5.76	4.64
California	3.96	4.65	4.73	4.38	3.97	4.31	6.87	4.26
Alabama	3.18	3.87	4.04	4.67	3.50	3.17	5.63	2.83
Wisconsin	3.10	3.67	3.74	3.53	2.79	4.10	5.52	4.85
New York	3.42	4.04	---	3.65	2.96	3.72	5.66	4.00
Florida	6.32	6.58	6.59	6.18	4.93	6.11	6.16	4.74
Texas	3.81	4.60	4.67	4.13	4.24	4.45	5.85	---
Minn.-N. Dak.	3.17	3.87	3.90	3.80	3.18	4.36	5.53	3.40
Washington	4.26	4.37	4.47	4.15	4.19	3.82	6.02	5.20
Maine	2.96	3.06	4.93	---	3.22	5.08	5.76	3.75
	Cleveland							
	1946	1947	1948	1949	1950	1951	1952	1953 1/
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
Maine	3.36	3.43	4.15	3.85	3.12	3.46	5.17	3.34
California	4.34	4.69	4.96	4.70	4.02	4.61	6.83	3.98
New York	2.55	3.11	3.40	3.32	2.20	2.86	5.10	2.98
Idaho	3.87	4.37	4.92	4.84	4.21	4.55	6.20	5.82
Florida	5.27	4.96	7.04	5.66	4.88	5.78	6.41	4.59
New Jersey	2.65	3.10	3.43	3.15	2.19	2.61	5.70	---
Washington	3.92	4.54	4.42	4.43	4.00	4.75	6.91	---
Virginia	3.14	3.70	3.85	3.50	2.89	3.27	6.18	3.15
Alabama	3.58	4.42	5.10	5.46	4.71	4.13	5.99	3.89
North Carolina	3.10	3.76	4.01	3.82	2.92	3.52	5.75	3.00
Texas	5.17	5.78	8.09	6.01	4.98	4.73	6.79	---
South Carolina	3.54	3.75	4.51	4.66	4.30	4.26	6.03	3.30
Pennsylvania	3.06	3.03	3.41	2.82	2.22	2.65	4.70	3.04
Nebraska	3.20	4.16	4.27	3.95	3.86	4.42	6.24	5.62
Oregon	---	4.43	---	3.90	3.87	4.32	4.93	---
Arizona	4.10	5.21	5.24	5.13	4.49	5.12	7.28	4.32
Minn.-N. Dak.	2.93	4.07	3.87	3.91	3.41	4.45	5.63	4.27
	Chicago							
	1946	1947	1948	1949	1950	1951	1952	1953 1/
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
Idaho	3.28	3.88	4.45	4.38	3.54	4.02	5.60	5.03
California	3.62	4.43	4.71	4.43	3.67	4.41	5.59	3.23
Colorado	2.95	3.63	4.16	3.73	3.01	3.54	4.89	3.96
Minn.-N. Dak.	2.22	3.00	3.31	3.26	2.52	3.25	4.71	3.19
Nebraska	2.89	3.26	3.89	3.61	2.82	2.83	6.32	4.62
Wisconsin	2.12	2.68	2.72	2.46	1.86	2.81	4.42	2.86
Washington	3.36	4.01	3.64	3.95	3.43	4.02	5.72	---

Continued

Table 22.- Average wholesale price per 100 pounds of potatoes, by source of supply, 9 selected markets, 1946-53 - Continued

Source of supply	Chicago (Contd.)							
	1946	1947	1948	1949	1950	1951	1952	1953 ^{1/}
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
Alabama	3.59	4.28	4.84	5.72	4.06	3.76	5.77	3.50
Texas	2.80	5.56	6.01	5.95	5.64	4.70	5.85	3.36
Florida	5.53	5.46	6.94	5.80	4.88	5.77	6.02	4.68
Oregon	2.92	3.90	3.81	3.42	3.65	3.60	6.23	4.10
Arizona	3.37	4.93	4.96	5.06	3.95	4.26	6.28	3.57
Michigan	2.10	3.28	2.85	2.82	2.79	1.94	4.10	3.55
St. Louis								
Idaho	3.53	4.02	4.47	4.37	3.68	4.11	5.72	5.35
Nebraska	3.11	3.73	4.20	4.04	3.11	3.48	5.22	4.07
California	3.87	4.31	4.62	4.72	3.72	4.18	6.81	3.57
Minn.-N. Dak.	2.76	3.18	3.54	3.18	2.78	3.14	4.91	3.37
Alabama	3.57	4.22	4.74	5.25	4.03	4.19	5.68	3.16
Colorado	2.97	3.54	3.70	3.54	3.10	3.50	5.64	4.39
Oregon	3.15	3.58	5.55	3.67	3.87	3.68	---	---
Texas	4.71	5.35	5.74	5.13	3.96	4.49	5.86	4.85
Washington	3.43	4.04	3.80	3.72	3.88	4.30	6.20	---
Arkansas	2.96	3.69	4.10	4.49	3.34	3.97	6.09	3.08
Louisiana	3.72	3.91	5.08	5.37	4.27	3.66	---	3.58
Florida	5.63	5.75	6.41	5.81	4.87	5.84	6.46	4.80
Wisconsin	2.70	3.25	3.21	2.79	2.18	2.50	4.62	4.83
Missouri	2.20	2.89	2.48	2.95	2.71	2.55	4.50	---
San Francisco								
California	3.48	4.13	4.33	3.62	3.45	3.93	5.40	3.75
Oregon	3.40	3.86	4.42	4.20	3.28	3.81	4.90	4.75
Idaho	3.69	4.74	5.00	4.33	3.11	3.68	5.77	5.25
Nevada	3.26	3.85	5.24	3.93	3.52	3.28	4.82	4.50
Florida	7.35	6.32	7.26	7.48	5.88	6.61	7.12	6.09
Washington	3.25	3.89	3.60	3.45	3.26	3.77	5.84	---
Los Angeles								
California	3.26	3.88	3.87	3.61	3.08	3.65	5.08	3.92
Idaho	3.33	3.70	4.44	4.08	3.19	3.43	5.37	4.82
Utah	3.20	3.54	4.39	3.84	3.00	3.41	4.87	4.32
Oregon	3.28	4.38	5.69	4.25	3.24	4.27	5.01	4.47

^{1/} First 6 months of 1953.



